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Seventeenth Annual Report

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A Policy Recommendation on Freestanding,

Secular Degree-Granting Institutions in Ontario

(pages 163 to 210 inclusive)

and

ADVISORY MEMORANDUM 90-IX

Access Programs

(pages 225 to 253 inclusive)

have not been responded to by the Minister and

therefore have not been included

Summary: Letter of Transmittal

Ontario

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November 26, 1991

The Honourable Richard Allen
Minister of Colleges and Universities
6th Floor, Mowat Block
Queen's Park
Toronto, Ontario
M7A 1L2

Dear Minister:

I respectfully submit herewith the 17th Annual Report of the Ontario Council on University Affairs, which covers the period from March 1st, 1990 to February 28th, 1991.

Each year, the Council is required to provide advice on the global funding required by the university system as well as the allocation of available funds among institutions. Council is also called upon from time to time to advise upon changes in the funding arrangements for the system or for individual institutions. The second major area of Council responsibility involves advising Government on the eligibility of new graduate and undergraduate programs for funding eligibility. Thirdly, Council also provides advice to Government on general policy issues. Finally, the Ontario Council on University Affairs has a public education role as part of its mandate. It is authorized to hold public hearings and issue discussion papers in the interest of informing public discussion of important issues pertaining to university education.

The Advisory Memoranda contained in this annual report demonstrate how Council has responded to its responsibilities. Most notably, a process of negotiated enrolment and funding adjustments intended to co-ordinate institutional plans and Government priorities was completed with the acceptance of Advisory Memorandum 90-I. Clearer guidelines for differentiating honours and general students for funding purposes were proposed and accepted in Advisory Memorandum 90-V. Council also commenced a new cycle of reviewing of Ryerson Polytechnic Institutes degree and diploma programs to ensure their continued currency and applied nature as required by long established public policy. These are matters which have demanded the attention of Council in addition to furnishing the annual funding, allocative, Ontario Graduate Scholarship and Program Approval Advisory Memoranda.

In the midst of a major recession, Government did not accept Council's advice on the allocation of the Program Adjustment Envelope. Indeed, the Envelope itself was eliminated during one of the several spending reduction exercises carried out during the year. Two other Advisory Memoranda, one on Degree Granting and the other on Access Programs, remain under active consideration and are therefore not included in this compendium.

During the year, Council published two documents based in part upon evidence presented at its annual hearings with the institutions and associated organizations. One paper, If the Future Were the Past, explored the likely consequences of a continuation of recent funding trends into the future. The second, Retirement and Recruitment, examined the challenge of renewing the personnel of the system in a climate of fiscal restraint. Both documents may be obtained in English and French by writing the Council directly.

Yours sincerely,

HVNelles

Dr. H. V. Nelles,
Chairman

Members and Officers of the Ontario Council on University Affairs 1990-91

Dr. Hashim Ahmed
(1992) Mississauga

Liliane Beauchamp
(1992) Sudbury

William Broadhurst
(1993) Toronto

Suzanne Fortier
(1993) Kingston

Julie Gagnon-Gravelle
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Peter George
(1993) Dundas

Colin Graham
(1993) Toronto

Evelyn Ruth Ham
(1992) Sudbury

Merrijoy Kelner
(1992) Toronto

Harriet Lyons
(1993) Waterloo

Susan McCartney
(1992) Thunder Bay

Lorna Jean Moses
(1992) Toronto

Henry (Viv) Nelles
(May 1992) Toronto
Chairman

Wendy Rinella
(1992) Kingston

Norman Sheffe
(1992) St. Catharines

Rodger Cummins
Senior Policy Advisor
to Chairman

Sheila Lucas
Administrative Assistant

Diana Royce
Research Officer

Marny Scully
Research Assistant

Kathryn Shaver
Research Officer

Paul Stenton
Manager, Research and
Policy Analysis

Anna Uppal
Research Officer

(Members' terms expire on last day of February of the year indicated in parentheses)

(resigned before term completed*

Members and Officers of the Academic Advisory Committee 1990-91

Trudy Bunting
(December 31, 1992) Kitchener

Joan Gilchrist
(March 31, 1992) Kamoka
*resigned June 1991

Professor Jean-Louis Major
(September 30, 1993) Prescott

Fernand Ouellet
(September 31, 1990) Toronto

Spruce Riordon
(March 31, 1992) Napean
Chairman from January 1, 1990

Ann Saddlemyer
(March 31, 1992) Oakville
*resigned June 1991)

Denis Shaw
(March 31, 1992) Hamilton

Alden H. Warner
(December 31, 1992) Windsor

* resigned before end of term

Introduction

Introduction

The Seventeenth Annual Report of the Ontario Council on University Affairs covers the period March 1, 1990 to February 28, 1991 and contains the full text of all Advisory Memoranda issued during the year. The report also contains a list of Council's public meetings for the year and the response of the Government to the recommendations made by Council.

Council's Advisory Memoranda

90-I Revisions to Universities' Formula Grants Envelope Corridor Mid-Points as a Result of the 1989-90 Corridor Negotiations

1.0 Introduction

In this memorandum, Council provides advice on the future levels of university formula grants envelope corridor mid-points or Base BIUs (Basic Income Units). These new corridor mid-points will ultimately determine institutional shares of formula grants allocated in the period 1990-91 to 1995-96 and beyond. The recommendations contained in this memorandum, framed within a set of Government-endorsed priorities, are the culmination of an innovative eight-month corridor negotiation process marked by extensive consultation with universities.

This was a unique experience for universities in Ontario. The benefits resulting from this method of corridor adjustment exceed a simple distribution of BIUs. The university system learned a great deal about itself in the process and, in the future, institutions will be able to plan in fuller knowledge of the intentions of others. Similarly, Government has a much clearer knowledge of precisely how the system as a whole, and particular institutions within it, might respond to societal needs in the future.

1.1 Context for Advice

On April 20, 1988, the Minister of Colleges and Universities requested that Council provide advice on "a new approach to funding for 1990-91 and future years." In her letter the Minister proposed:

> ... that the council, after consulting fully with the university community, advise me on a new approach to funding for 1990-91 which takes into account enrolment growth in 1989-90 and previous years and which will promote a co-ordinated and planned approach to future enrolment growth.[1]

Council responded to the Minister's reference in Advisory Memorandum 89-II recommending that:

- the corridor system be modified to accommodate permanent enrolment increases

---

[1] Letter from the Honourable Lyn McLeod, Minister of Colleges and Universities, to Dr. Paul Fox, April 20, 1988.

- the flow-through of students from existing levels of intake should be funded at Average Revenue

- the $84 million Accessibility Envelope be phased-out over three years and the funds be combined with the flow-through commitment to fund upward corridor shifts

- $91.1 million in additional on-going operating grants be provided over 6 years to cover the costs associated with the estimated increase of 19,500 Basic Income Units (BIUs)

- corridor shifts should be planned by institutions, negotiated in a series of multilateral exchanges with Council over a 7-10 month period, and recommended to the Minister

- the transition to new approved corridors be funded according to a growing five year moving-average until the mid-point of the new corridor is reached

- provision be made for Strategic Program Corridors to ensure rapid adjustment to priorities identified by Government in consultation with Council and institutions

- once new corridors are in operation compatible provisions are recommended for longer-term upward or downward system enrolment change.[2]

On June 15, 1989, the Minister of Colleges and Universities indicated that Government had accepted Council's advice on accommodating future enrolment growth indicating that "the modified operating grants formula proposed by the council will be implemented as recommended by the council in the 1990-91 fiscal year". She requested that Council "initiate as expeditiously as possible the corridor negotiation process outlined in the advisory memorandum".[3]

---

2. Ontario Council on University Affairs, Advisory Memorandum 89-II, p. 1.

3. Letter from the Honourable Lyn McLeod, Minister of Colleges and Universities, to Dr. H. V. Nelles, June 15, 1989.

2.0 1989-90 Corridor Negotiation Process

2.1 Overview

The 1989-90 corridor negotiation process followed the approach recommended in Advisory Memorandum 89-II and accepted by the Minister of Colleges and Universities on June 15, 1989.

The schedule for corridor negotiations was as follows:

Round 1 -	Call for proposed corridor changes (August 8 - October 20, 1989)
Round 2 -	Circulation and comment (October 23 - November 30, 1989)
Round 3 -	Downwards modification of proposals (December 1, 1989 - January 31, 1990)
Round 4 -	Finalization of corridors (February - March, 1990)

Council initiated the 1989-90 corridor negotiation process on August 8, 1989, with the publication of a detailed Manual[4] inviting institutions to submit their plans to accommodate enrolment growth on a permanent basis. Guided by the priorities set out in that Manual, institutions developed and submitted Round 1 proposals to Council on October 20, 1989. In that round, institutions applied for almost twice as many BIUs as were available for allocation. According to the procedures understood from the outset, these Round 1 submissions established the maximum corridor proposals which could only be reduced in subsequent rounds.

To facilitate the information-sharing process planned for Round 2, all institutional plans were circulated across the system. Institutions were asked to submit comments on other institutions' plans by November 20, 1989, with a view to identifying potential conflicts or inconsistencies. With the assistance of these institutional comments, the Funding Committee of Council offered guidance to the system as a whole, providing its general thoughts on the collective implications of the submissions. Specific letters were also addressed to each institution commenting briefly upon institutional plans.[5]

---

[4] Ontario Council on University Affairs, 1989-90 Ontario Universities Formula Operating Grants Corridor Negotiation Procedures, August 8, 1989.

[5] Ontario Council on University Affairs, Compendium of Council Comments in Round 2 of Corridor Negotiations, 1989-90, November 30, 1989.

Revised Round 3 institutional plans, submitted on January 31, 1990, while lower than Round 1 plans (65,939 BIUs), nonetheless reflected substantial overbidding in relation to available BIUs. The magnitude of this overbidding required that Council implement more definitive decision-making criteria in Round 4 to bring corridor requests in line with available BIUs in the time available.

Hence, the 1989-90 corridor negotiations ultimately became a process of reducing institutionally desired corridor shift plans from a level of 84,700 to the level of incremental BIUs available, 45,600. The principles and procedures which guided Council through this eight-month process of reconciling institutional growth aspirations with available BIUs are discussed in detail in the sections to follow.

2.2 Balance among Planning, Coordination, Accountability and Flexibility

At the outset of the 1989-90 corridor negotiation process, Council reflected upon the more general public policy issues involved. The most important consideration was the degree of intervention contemplated by Council or Government into decisions on institutional enrolment change and program mix. Two extremes which could have been considered were a high degree of central planning by Council and Government, and laissez-faire competition for enrolment with no priorities identified and institutional entitlements being determined arithmetically. Table 1 outlines in schematic form three levels of intervention, indicating the implications for the balance among planning, coordination, accountability and flexibility.

As outlined in Advisory Memorandum 89-II, Council sought a middle road:

> ... Several factors were weighed when addressing this issue including the appropriate locus for planning institutional change and the manageability of conducting several negotiations simultaneously in view of Council members' time and limited staff resources. Council has decided that the most appropriate role for Council is not to be a central planner, but to be a co-ordinator of change, ensuring the compatible outcome of individual institutional choices from a university system and public policy perspective...
>
> ... Council will intervene when:
>
> i) institutional plans are inconsistent with system objectives and needs;
>
> ii) institutional plans are inconsistent with other institutions' activities and plans; or

iii) with the funds available, the sum of individual institutional corridor changes cannot be funded at a rate of average BOI per Base BIU.[6]

Table 1

The Effect of Intervention on Planning, Coordination, Accountability and Flexibility

	Planning	Coordination	Accountability	Flexibility
High Intervention	OCUA Government	OCUA/ Government	Strict/Program Level	None - changes in plan require approval
Medium Intervention	Institution	OCUA	Aggregated Programs - Undergraduate - Graduate - Priority programs - Conflict programs	Some - controls on conflict and priority program areas
Low Intervention	Institution	Formulaic entitlements	Total BIUs funded regardless of program	Total - no priorities

This coordinating role is in direct response to Government's stated position that the new approach to funding allocation must "promote a coordinated and planned approach to future enrolment growth".[7] It also reflects the fact that Council both lacks the resources and the mandate to perform the role of a central planner. Such a role would also mark a distinct break with the history and traditions of university education in Ontario. Accordingly, Council attempted to establish a role for itself not as the planner for the university system but rather as a co-ordinator of institutional plans. It is a fine but important distinction.

The balance Council wished to achieve among the factors identified in Table 1 can be summarized as follows:

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[6] Ontario Council on University Affairs, Advisory Memorandum 89-II, pp. 40-41.

[7] Letter from the Honourable Lyn McLeod, Minister of Colleges and Universities, to Dr. Paul Fox, April 20, 1988.

(i) Planning

The locus of planning would be at the institutions. Institutions were responsible for the development of their plans and will be responsible for their achievement and the consequences of not meeting objectives. These plans were, however, to be developed within a set of system priorities and parameters identified by Council.

(ii) Coordination

Council was responsible for the coordination of institutional plans, with this responsibility being four-fold:

- declaring Government-endorsed system objectives, priorities, and parameters;
- coordinating the dissemination of information related to the corridor negotiation process and promoting inter-institutional discussion of each other's plans;
- identifying inconsistencies and conflicts in institutional plans; and
- after institutions have attempted to resolve conflicts and inconsistencies, reducing planned enrolment levels to fit the resources available, preferably by negotiating changes in plans and recommending on the final resolution of conflicts.

(iii) Accountability

There must be a provision to ensure that institutional plans have meaning and that Council's and Government's expectations will be fulfilled within a reasonable margin of error. Accountability will be required for identified priority areas and situations where conflicts have been resolved.

(iv) Flexibility

There must be some flexibility in allowing institutions to "march to a different drummer" than prescribed by Council or Government priorities and in meeting planned enrolment targets set several years into the future. Council was most concerned that the aggregate outcome for the system meets system priorities. Individual institutional plans need not necessarily be miniature replicas of system priorities. On the other hand, accountability provisions allow for the possibility that if future system demand will not allow institutions to meet targeted priority program enrolments, institutions should have the flexibility to pursue enrolment in other areas.

Throughout the 1989-90 corridor negotiation process, Council was faced with two problems which eventually led to a higher degree of intervention by Council in its coordinating role and less flexibility in deviating from Government priorities. First, there was, in aggregate, significant overbidding for the BIUs available for allocation. Second, the number of BIUs available to fund growth was insufficient to meet fully the priorities and objectives outlined by Government. Consequently, Council was forced to make trade-offs between the priorities and to reduce institutional requests to insure that allocations equalled the resources available. Accordingly, Council could not allocate many BIUs to non-priority objectives. Council had hoped that, at the conclusion of two rounds of planning, only minor regional or programmatic conflicts might remain which could be eliminated through bi-lateral negotiations. Unfortunately, the magnitude of overbidding in virtually all categories precluded the possibility of Council negotiating directly with institutions in the reduction of institutions' desired corridor levels and in reconciling institutional objectives.

2.3 System-level Considerations

2.3.1 Objectives of Corridor Negotiations

Council's objectives for the 1989-90 corridor negotiations included:

- accommodate enrolment growth in a coordinated and planned manner;
- ensure adequate funding for incremental enrolment so as to avoid a zero-sum reallocation of the Accessibility Envelope;
- ensure that the formula grants envelope and other funding envelopes operate in a coordinated manner to provide stable institutional funding;
- limit the impact on institutional funding of potential negative consequences of other institutions' actions;
- promote growth in disciplines and in areas where future graduates are required. That is, respond to public policy, social, economic, and system needs for future graduates;
- balance competing priorities or system needs with institutional capacity;

- allow quality considerations to enter into the calculation along with quantity considerations; and
- maintain an appropriate balance between institutional autonomy, and meeting public policy and system needs.

2.3.2 Priorities for 1989 Corridor Negotiations

A number of possible system priorities were identified in the course of consultations on corridor negotiations in the Spring and Summer of 1989. In her letter of June 15, 1989, the Minister of Colleges and Universities identified one of Government's priorities in corridor negotiations:

> On the basis of the government's acceptance of the council's advice and the above noted funding commitment, it is my expectation that the institutions will respond positively to applications for first-year admission in 1989 with a view to maintaining the high level of first year admission achieved in 1988.[8]

On July 31, 1989, the Minister reiterated this position but also stated "I believe that it is also important for the council and the institutions to consider other government priorities as enrolments are increased to the new base levels."[9] The following system-level priorities were endorsed by the Minister:

(i) maintain 1988-89 levels of first year admission (wherever possible, particularly in respect of full-time secondary school applicants);

(ii) increase science and engineering enrolment (at both undergraduate and graduate levels);

(iii) increase health science enrolment in nursing, occupational therapy/physical therapy, rehabilitation medicine, speech pathology/audiology;

(iv) increase teacher education enrolment;

(v) increase graduate enrolment (to replace the professoriate); and

---

[8] Letter from the Honourable Lyn McLeod, Minister of Colleges and Universities, to Dr. H.V. Nelles, June 15, 1989.

[9] Letter from the Honourable Lyn McLeod, Minister of Colleges and Universities, to Dr. H. V. Nelles, July 31, 1989.

(vi) increase French language program offerings.[10]

The Minister also added:

> I also agree that the above increases should be negotiated with due care and attention to the fact that some institutions could be vulnerable to the actions of others in some specialized program areas.[11]

Table 2 lists the system-level priorities Council adopted for the 1989-90 corridor negotiation process in rank order of importance. As indicated in Advisory Memorandum 89-II, the increase in BIUs to be funded through corridor shifts is based upon a projection of constant undergraduate intake and retention rates and constant total or flat-lined graduate enrolment. Consequently, the funds available dictated that trade-offs would have to be made among some of the priorities. This is particularly true with respect to maintaining first-year admission and expanding non-direct entry programs. A greater emphasis on expanding specific and high-weight non-direct entry programs will necessarily reduce institutions' ability to maintain first-year admissions.

Table 2

System-Level Priorities for 1989-90 Corridor Negotiations

(i) maintain 1988-89 level of first-year admission (full-time BIU level)

(ii) increase science and engineering enrolment

(iii) increase health science enrolment in areas of societal demand
  - speech pathology and audiology
  - occupational therapy/physical therapy
  - nursing

(iv) increase teacher-education enrolment

(v) increase graduate enrolment to replace the professoriate

(vi) increase French language program offerings

(vii) maintain institutional enrolment capacity

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[10] Ibid.

[11] Ibid.

Clearly, for some of the priorities identified, it was not possible to meet the entire need for expansion through corridor shifts. These demands are too great to be accommodated within the BIUs provided. Additional funds will need to be sought through strategic program corridor shifts, program adjustments and other sources for, among others, French language program expansion, teacher training and replacement of college and university faculty, and whatever additional enrolment increases occur beyond 1989-90 levels.

2.3.3 System Parameters

To aid institutions in determining the appropriate size of planned corridor shifts, Council identified at the beginning of the corridor negotiation process a number of system-level parameters which set the boundaries for the 1989-90 corridor negotiations.

(i) The funds available

In addition to the existing $84.0 million in Accessibility Envelope funds, $95.8 million has been made available for corridor shifts. The Minister indicated on June 15, 1989 that $46.7 million was committed for 1990-91. She also stated that "amounts in the five succeeding years will be determined on the basis of Advisory Memorandum 89-II which indicates that up to $91 million including the above noted $46.7 million will be required." On November 29, 1989 the Minister announced that a further $4.7 million in ongoing base funding would be available to fund corridor shifts in 1990-91, bringing the total for that year to $51.4 million (as shown in the Incremental Operating Grants column of Table 3) and for the total period, to a total sum of $179.8 million.[12]

Council has been informed that Government's acceptance of its advice on the additional funding for corridor shifts was based on the cash-flow outlined in Advisory Memorandum 89-II. The recommended allocations follow the cash-flow for additional funds outlined in Table 3.

(ii) The BIU value

In Advisory Memorandum 89-II, Council used a BIU value of $4,708.60 to determine the grants required in 1990-91 and beyond. This value equalled the then estimated level of average Base BOI/Base BIU in 1989-90. Council felt strongly then, and continues to feel so now, that the value of the BIU for corridor shift BIUs must be maintained at 100% of the Base BIU value. This was a critical principle outlined in Advisory Memorandum 89-II. It was further recommended that the BIU value of corridor shift BIUs be escalated annually to maintain equality with the average Base BIU value.

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[12] Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H.V. Nelles, November 29, 1989.

Table 3

Projected Operating Grants Available for Corridor Negotiations
1990-91 to 1995-96

($ million)

	Accessibility Envelope Funding	Phase-Out Accessibility Envelope Funding	Incremental Operating Grants	Total Corridor Shift Operating Grants	Year to Year increase in Incremental Operating Grants
1989-90	84.0			84.0	
1990-91	65.8	18.2	51.4	135.4	
1991-92	47.6	36.4	66.9	150.9	15.5
1992-93	18.7	65.3	78.0	162.0	11.1
1993-94	0.0	84.0	86.0	170.0	8.0
1994-95	0.0	84.0	88.4	172.4	2.4
1995-96	0.0	84.0	95.8	179.8	7.4

Note: Figures given are not escalated for inflation.

During the 1989-90 corridor negotiations process, Council used an updated 1989-90 Base BIU value of $4,721.57 to determine the number of BIUs which could be funded and allocated. With the operating grants available for incremental BIU growth for 1990-91 there is no inflationary escalation to increase the grant portion of the BIU value for corridor shift enrolments to 1990-91 dollars. While the formula fees portion was increased at a rate of 8% for 1990-91, because the operating grants for corridor shifts was not increased for inflation, the BIU value will be less than Council's intended benchmark value, the average Base BIU value. Council currently estimates that in 1990-91 dollars the BIUs identified for corridor shifts could be funded at an average rate of $4,784 while Base BOI per Base BIU equals $4,951.[13]

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[13] It should be noted that the identified BIU value and the number of BIUs which can be funded with the grants available is an estimate based on the estimated formula fees submitted by the institutions. The accuracy of these estimates will be a function of the enrolment mix registered in future years and cannot be guaranteed to coincide with the estimates put forward at this time.

To accommodate the shortfall in the BIU value created by the current funding situation, Council recommends that over the six-year period of corridor shifts, sufficient funds be provided so that the BIU levels identified in Table 4 be funded at the average Base BIU value in the previous year escalated by the current year increase in formula fee rates (for the formula fee portion of the BIU value). Under this "slip-year" approach the full BIU value will be realized one year after all new corridors have been reached.

Accordingly, Council *recommends to the Minister:*

OCUA 90-1
ESCALATION OF BIU VALUE FOR CORRIDOR SHIFT BIUS

THAT BIU values for incremental BIUs beyond the current Base BIU level be set in accordance with considerations outlined in this memorandum.

(III) The number of BIUs to be funded

The number of BIUs to be funded is a function of the grants available, formula fee projections and the BIU value used. Council estimates the total number of BIUs to be funded through corridor adjustments at the levels indicated in Table 4. This estimate is based on the flow of funds outlined in Table 3, a BIU value of $4,721.57 and an average formula fee per BIU of $778.68.

As noted above, there are insufficient BIUs available to accommodate Government and Council priorities. Since the flow of funds and BIUs available outlined in Table 4 were for the most part based on assumptions of constant undergraduate intake at 1988-89 levels and flat-line graduate enrolment, the increase in intake which occurred in the Fall of 1989 will mean that institutions will be able to reach their new corridor mid-points somewhat sooner. Council believes that it would be highly appropriate and desirable to accelerate the flow of funds available to universities so that institutions are able to be funded at their new corridor mid-points at an earlier date.

Accordingly, Council *recommends to the Minister:*

OCUA 90-2
ACCELERATION OF FLOW OF OPERATING GRANTS AVAILABLE FOR CORRIDOR SHIFTS

THAT the scheduled flow of incremental operating grants made available for corridor shifts outlined in Table 3 be accelerated to reflect recent intake increases and the consequent flow-through enrolments.

2.4 Decision-Making Criteria for Institutional Allocations

Council indicated early in the 1989-90 corridor negotiations process that it would only with great reluctance intervene in institution's planning process. It would do so as a last resort to harmonize institutional plans. Nevertheless, with the degree of overbidding present throughout the 1989-90 corridor process, in Round 4 Council was required to choose among competing institutional plans in order to keep university growth aspirations within the system parameters noted above.

However, anticipating such an eventuality, at the beginning of the 1989-90 corridor negotiation process Council gave an advanced indication of the criteria it would use to harmonize plans. The criteria outlined in Table 5 apply system-level objectives, priorities, and parameters; allow for an evaluation of institutional plans; lead to conflict resolution among institutions; and assess institutions' ability to reach target enrolment levels.

Table 4

Estimated Incremental BIUs Available for Funding 1990-91 to 1995-96

($ million)

	Accessibility Envelope BIUs	Moving-Average BIUs	Total BIUs
1990-91	19,600	17,460	37,120
1991-92	14,500	26,150	40,650
1992-93	6,100	36,480	42,580
1993-94		43,430	43,430
1994-95		43,950	43,950
1995-96		45,600	45,600
Corridor Level		45,600	45,600

At the beginning of the 1989-90 corridor negotiations process, Council indicated that there may be some later refinements to these criteria to give these concepts greater precision. Institutions were also informed that they should keep these criteria in mind when developing their corridor shift plans, that the quality of information provided to address these criteria would no doubt have an impact on any decisions made, and that Council had neither the resources nor the time to undertake extensive follow-up procedures to seek clarification.

Council implemented its decision criteria within the following broad considerations:

(1) In all priorities but one, there were considerably fewer BIUs available than bid. Consequently, the process aimed at bringing the ultimate allocation into line with available BIUs within the context of higher level institutional plans.

(2) Each institution's new corridor mid-point was calculated as the sum of its allocations under each priority.

(3) For each priority, decisions concerning the allocation of the BIUs available were made on the basis of formulaic calculation, evaluation of plans, or a combination of the two.

(4) The approach chosen and the attributes of the formulae or judgement criteria varied from priority to priority, reflecting each priority's objectives, the number of BIUs available and requested by universities, and the priority's suitability for formulaic or judgement criteria allocation.

Council's decision-making process encompassed three distinct phases: (1) development and implementation of formulaic distributions for each priority, (2) development and implementation of evaluation criteria and (3) adjustment for conflicts, outstanding circumstances not addressed in earlier phases, and priority 7 - maintaining institutional capacity.

For almost all priorities, Council allocated a portion of the incremental BIUs available on a formulaic basis. This approach enabled Council to give due weight to the impact of recent increases in institutional activity in response to the Accessibility Envelope and, alternatively, the relative level of institutions' total activity in the priority area. It also allowed Council to concentrate its discretionary judgement on the margin, where it allocated BIUs according to evaluative criteria. The formulae chosen and the proportion of BIUs to be allocated formulaically were determined according to the attributes desired in each priority's allocation. That is, the formulae chosen contained attributes which best reflected the context of the priority area. For example, historically based allocations can display distinctly different attributes. An allocation based on total BIUs in a priority area (that is, including current Base BIUs

Table 5

General Decision-Criteria Considerations for 1989-90 Corridor Negotiation

Category	Decision Criteria	Operational Considerations
Implementation of System Objectives	Maintenance of first year intake levels to sustain general accessibility	- ranking would be al follows: 1. existing general accessibility flow-through enrolment 2. new general accessibility - additional intake
		- trade-off with non-direct entry program enrolments
	Increased specific program enrolments	- identify the size of BIU increase required in each program
		- identify institutions with strengths in the discipline and ability to attract and sustain enrolment
		- trade-off for non-direct entry programs with first year intake levels
	Increased graduate enrolment	- identify appropriate disciplines where faculty shortages are to occur
		- trade-off for undergraduate enrolment
	Enrolment growth will not jeopardize the viability of another institution's corridor	- assess inter-institutional demand trade-offs as raised by institutions and identified in general demographic data
Suitability of Institutional Plans	Consistent with the aims, objectives and existing strengths of the institution	- demonstrated institutional priority, collateral strengths and appropriate direction
		- quality of program
	Quality of planning process, demonstrated fit with long-term academic plans	- provice documentation of how program expansion is integrated in stated institutional plans such as senate plans
	No declared conflict by Council or other institutions	- conflicts must be resolvable
	Limited capital or other extra-ordinary funding requirements	- preference given to institutions with capacity and not requiring additional capital or operating resources beyond BIU funding
		- if capital funding is required, is the project a priority as identified in the institution's five-year capital plan
Ability to reach targets	Demonstrated ability to reach general and program specific BIU targets	- evidence of student demand, regional need, program demand
		- comparison with current institutional capacity at other institutions in specific programs
	For proposed new programs, demonstrate case for meeting normal program approval criteria	- institutions will be required to submit an alternative proposal in case funding approval is not granted

Source: Ontario Council on University Affairs, 1989-90 Ontario Universities Formula Operating Grants Corridor Negotiation Procedures, August 8, 1989.

plus any incremental BIUs) will reflect the institution's total activity level or stock of BIUs relative to other institutions. Whereas, an allocation based on the incremental change in BIUs above the current Base BIU level will reflect changes in activity in the past few years, ignoring the stock on which that activity is added. The following types of formulae have been used in one or more priority area: (1) pro-rata allocation based on the stock of BIUs in recent years (total BIUs in a priority area); (2) pro-rata allocation based on incremental BIUs above the current base BIUs or a similar comparison point (total BIUs in a priority area less current Base BIUs); (3) BIUs reflected in institutional corridor submissions; and (4) a combination of formulae.

In addition to the formulaic distribution, most priorities had a portion of the BIUs available distributed on the basis of qualitative considerations or evaluative judgement criteria. These factors included proxies of institutional quality with respect to the priority area, the effectiveness of the case made for an institution to receive available BIUs, the priority's fit with institutional aims, objectives and existing strengths, and the quality of the planning process and fit of the submission with the institutions' long-term academic plans, as demonstrated in the institutional submissions. The institutional quality proxies were based on available comparative measures such as entering grade 13 averages or shares of peer-adjudicated research grants. For each of the remaining judgement criteria, institutional submissions were reviewed, evaluated, and given a score relative to other universities.

The final adjustments ensure that the allocation takes into account other Council policy initiatives, circumstances not adequately captured under the other distribution factors, inter-institutional conflicts, and each institution's enrolment capacity or capability. The adjustments could include unaddressed inter-institutional conflicts, additional resource requirements (both operating and capital), a mismatch between program adjustments envelope funding and the corridor negotiation allocation, and unsolicited expanded growth aspirations in Round 3 of the 1989-90 corridor negotiations process, and adjustments to ensure a corridor level for institutions such as the Ontario College of Art and Algoma College are consistent with other Council objectives.

2.5 Outline of the 1989-90 Corridor Negotiations Process

2.5.1 Round 1 - Call for proposed corridor changes

As specified in Advisory Memorandum 89-II, Council initiated the first step in a multiple-institution corridor adjustment procedure by calling for institutional proposals. It was made clear at the outset that there were no entitlements to funds based upon previous enrolment decisions. Corridors were to be adjusted according to plans submitted, negotiated and recommended to the Minister.

Council initiated the planning process for the 1989-90 corridor adjustment in its August 8, 1989-90 Ontario University's Formula Operating Grants Corridor

Negotiations Procedures "Manual". In it Council identifies a number of factors which assisted institutions in the submission of their plans including the objectives of the 1989-90 corridor negotiations, priorities for the 1989-90 corridor negotiations, system-level parameters such as the funds available and BIUs to be funded, decision-making criteria to be used if Council was required to intervene, accountability provisions and the information required of institutions proposing to declare new corridor levels.

In Round 1 all institutions which wished a corridor adjustment were required to declare the desired level of their new Base BIUs or corridor mid-point. The declared new corridor level was the maximum corridor allowed. In the course of negotiations, institutions were allowed to modify corridor proposals only downwards unless Council specifically requested that they be raised. This ensured that as a result of the first round of corridor declarations, institutions would know the maximum impact from other institutions' proposed corridor changes. Council also issued two 1989-90 Corridor Negotiations Bulletins in Round 1 to clarify technical issues and indicate alternate sources of data informing Council's decision-making process.

All institutions, with the exception of the Ontario College of Art and Dominicain College submitted a Round 1 corridor submission. In total, institutions requested corridor increases of over 84,700 BIUs, just over 39,000 BIUs more than available for allocation. Proposed undergraduate growth above the current base equalled 58,769 BIUs or a 19.2% increase while proposed graduate growth above the current Base equalled 25,880 BIUs, 30.7% and 46.8% increases in master's and doctoral BIUs respectively. Table 6 outlines the Round 1 proposed corridor shifts according to each priority area.

2.5.2 Round 2 - Circulation and comment

Institutions' proposed corridor adjustments and supporting documentation were circulated among all institutions. COU generously agreed to play a key role in this information sharing process and carried out the logistics of institutional circulation.

Institutions then were able to submit comments on other institutions' plans. Following a review of institutional proposals and institutional comments. Council provided its own comments on institutional plans, identified inconsistencies or conflicts which it believed must be resolved in Rounds 3 and 4, and indicated its planned distribution of available BIUs among priority areas. A compendium of these comments was sent to each institution on November 30, 1989.

The first and most obvious comment made by Council about the Round 1 Corridor Negotiation proposals was that the institutions separately applied for almost twice as many BIUs as were available. This was perhaps not surprising in view of the fact that in subsequent rounds institutions could only adjust their proposals downwards. Given that each institution now had a precise idea of what other hope to do, Council indicated that it expected significant moderation of institutional ambitions.

Table 6

Summary of Round 1 Proposed Corridor Shifts

	Proposed Increase in BIUs [Gross increase]	Increase Over Current Base	1988-89 Increment over Current Base in BIUs [Gross increase]	Increase Over Current Base
Priority 1 - Maintain Undergraduate Intake (1)	51,900	17.4%	16,400	5.5%
Priority 2 - Increase Science and Engineering				
- Undergraduate	8,400	7.2%	(6,000)	-5.1%
- Graduate	12,400	43.1%	3,700	12.8%
Priority 3 - Increase Health Sciences				
- Nursing	1,200	22.6%	700	13.2%
- OT/PT	1,400	116.4%	400	33.3%
- Speech Pathology and Audiology	300	100.0%	60	20.0%
Subtotal	2,900	42.6%	1,160	17.0%
Priority 4 - Increase Pre-Service Teacher Education	6,900	94.5%	1,500	20.5%
Priority 5 - Graduate Replacement of the Professoriate (2)	11,200	28.7%	7,700	11.2%
Priority 6 - Increase French Language:				
- Undergraduate	3,600	32.4%	1,300	11.7%
- Graduate	1,400	82.4%	500	29.4%
Total (3)	84,700	22.6%	26,260	7.0%

Source: Round 1 Corridor Negotiation Submissions

Notes:

(1) Total undergraduate BIUs (excluding OCA and Dominicain) less pre-service education enrolment

(2) Total graduate BIUs

(3) Total undergraduate and graduate BIUs (due to overlap among priorities, the sum of the figures outlined in the priorities listed is greater than the total indicated which nets out the overlap)

Table 7

Distribution of the Incremental BIUs Available Among Priorities

	Growth Between Current Base and 1988-89		Growth Beyond 1988-89 Level		Total BIUs Available	
	Gross Increase Between Current Base and 1988-89	Net Increase Between Current Base and 1988-89	Gross Increase Between 1988-89 and New Base	Net Increase Between 1988-89 and New Base	Total Gross BIUs Beyond Current Base	Total Net BIUs Beyond Current Base
1. Maintain 1988-89 FT intake (1)	16,400	16,400	16,000	16,000	32,400	32,400
2. Science and Engineering						
Undergraduate	(6,000)	[A]	6,000	[A]	0	[A]
Graduate	3,700	3,700	1,000	1,000	4,700	4,700
3. Health Sciences						
Nursing	700	[B]	500	[B]	1,200	[B]
OT/PT	400	[B]	800	[B]	1,200	[B]
Speech Pathology/Audiology	60	[B]	300	[B]	360	[B]
4. Education	1,500	1,500	1,800	1,800	3,300	3,300
5. Graduate - Professoriate Replacement (2)	7,700	4,000 [C]	2,200	1,200	9,900	5,200
6. French Language						
Undergraduate	1,300	[B]	500	[B]	1,800	[B]
Graduate	500	[D]	250	[D]	750	[D]
Total	26,260	25,600	29,350	20,000	55,610	45,600

Source: General letter to executive heads of provincially-assisted universities in Round 2 of the 1989-90 corridor negotiations process from Dr. H.V. Nelles, Chairman, November 30, 1989.

Notes:

(1) For growth from current base to 1988-89, the figures include total undergraduate BIUs excluding pre-service education enrolment.

(2) For growth from current base to 1988-89, the figures include total graduate BIUs.

A. BIUs in this category are included in priority 1.

B. BIUs in this category are included in priority 2 or both priorities 1 and 2.

C. The remainder of these graduate BIUs are included in priority 2.

D. BIUs in this category are included in priorities 2, 5 or both

In order to aid institutions in identifying appropriate changes in their submission, Council outlined at that time its thoughts on the pattern of BIU distribution of the funds available among the priorities for corridor negotiation. Table 7 outlines this distribution. Table 7 identifies both "gross" enrolment increases and "net" enrolment increases. That is, the "gross" figure includes some BIUs subsumed within other priorities; this double-counting is removed in the "net" columns. The final two columns of the table outline the targets for the distribution of available BIUs among each priority. These figures represent the total growth to be funded from current corridor mid-points to new corridor mid-points. The previous columns break down these figures according to (i) the growth which occurred up to 1988-89, and (ii) the growth targeted beyond 1988-89.

A number of institutions pointed out in their Round 2 submissions that some of the collective and individual institutional ambitions for corridor change were not realistic, would create destructive competition for students and might ultimately not be achievable. Particular concern was noted for graduate studies, the number of new programs proposed, science and engineering, nursing and institutions with proportionately large growth. Council noted these concerns and concurred with the assessments of achievability identified by many institutions. Council expressed particular concern with graduate ambitions both with respect to proposed growth in BIU levels and proposed introduction of new graduate programs. Over 100 new graduate programs were proposed in Round 1 of the 1989-90 corridor negotiation process.

2.5.3 Round 3 - Downward modification of proposals

Institutions were able to modify their proposals downward in light of the information provided in Rounds 1 and 2. In Round 3, institutions were also asked to respond to inconsistencies or conflicts between plans identified by Council in Round 2. Where inter-institutional differences were identified, institutions were asked to address them jointly.

To facilitate inter-institutional consultations, Council set up a series of meetings among institutions to discuss issues pertaining to several of the priority areas. These meetings were independent of Council steering and allowed the interested parties an opportunity to address needed reductions in institutional proposals. To ensure this independence, Council members were not in attendance at these meetings. Instead, to convene these meetings, Council provided the facilities, secretariat resources, and an independent chairman to moderate the discussion. On two occasions, Council staff were invited to provide technical clarifications. Four meetings were held to cover each of the following priority areas:

- Health Sciences - to discuss nursing, occupational therapy and physical therapy, and speech pathology and audiology;

- Teacher Education;
- Science and Engineering; and
- French language programs.

Round 3 submissions were provided, following these meetings, at the end of January, 1990. These submissions displayed significant reductions in proposed corridor growth. Total proposed corridor growth fell from a Round 1 level of 84,650 BIUs to 65,939 BIUs. However, the revised proposals still exceed the BIUs available by 20,339. Table 8 outlines the size of Round 3 requests in each priority area. While some institutions did not alter their Round 1 submissions, many institutions appear to have given careful consideration to the reductions in the proposal in Round 3.

2.5.4 Round 4 - Finalization of Corridor

In Round 4 of the 1989-90 corridor negotiation process Council reviewed institutions' revised corridor proposals and further developed and implemented the procedures it used to reconcile the proposed corridor shifts with the BIUs available. Unfortunately, with institutional proposals still totalling 20,339 BIUs above the BIUs available and with limited time and resources at its disposal, Council was unable to undertake bilateral negotiations with institutions to bring their proposals in line with the BIUs available. Instead, Council followed the general allocative procedure outlined above under Section 2.4. (Decision-making Criteria for Institutional Allocations).

3.0 Recommended Allocation of Corridor Shifts

The primary responsibility in the corridor negotiation exercise rested with the institutions to develop plans in full knowledge of other institutional plans. As noted earlier, this process led to a good deal of inter-institutional discussion and co-ordination at the program level. Nevertheless, at the conclusion of Round 3 the total number of BIUs needed to fulfil all institutional plans exceeded the 45,600 available by 44.6%. Therefore, Council had to develop a methodology to determine how much of each institutional plan it could recommend that the Minister should accept. Details of the methods worked out within each priority area are outlined in the sections which follow.

As a result of the methodology adopted, Council determined that it could nearly meet all of some institutional plans, as was the case with the University of Windsor. In other instances, it was possible to meet institutional plans within certain priority areas. For example, in the case of McMaster, Queen's, Toronto, Western and Windsor it was possible to meet institutional plans fully in priority 1, relating to maintenance of undergraduate intake. Likewise, in undergraduate science and engineering Waterloo, Western, Windsor and Ryerson's submission were met in full

Table 8

Summary of Round 3 Proposed Corridor Shifts

	Proposed Increase in BIUs [Gross Increase]	Increase Over Current Base	1988-89 Increment Over Current Current Base in BIUs [Gross Increase]	Increase Over Current Base
Priority 1 - Maintain Undergraduate Intake (1)	46,500	15.1%	16,400	5.5%
Priority 2 - Increase Science and Engineering				
- Undergraduate	4,300	3.8%	(6,000)	-5.1%
- Graduate	10,000	35.2%	3,700	12.8%
Priority 3 - Increase Health Sciences				
- Nursing	1,000	16.7%	700	13.2%
- OT/PT	1,500	125.0%	500	33.3%
- Speech Pathology and Audiology	300	100.0%	60	20.0%
Sub-Total	2,800	37.3%	1,160	17.8%
Priority 4 - Increase Pre-Service Teacher Education	5,000	62.5%	1,500	20.5%
Priority 5 - Graduate Replacement of the Professoriate (2)	11,400	20.0%	7,700	11.2%
Priority 6 - Increase French Language:				
- Undergraduate	3,000	21.4%	1,300	11.7%
- Graduate	1,800	60.0%	500	29.4%
Total (3)	65,900	17.6%	26,260	7.0%

Source: Round 3 Corridor Negotiation Submissions

(1) Total undergraduate BIUs (excluding OCA and Dominicain) less pre-service education enrolment.

(2) Total graduate BIUs

(3) Total undergraduate and graduate BIUs (due to overlap among priorities, the sum of the figures outlined in the priorities listed is greater than the total indicated which nets out the overlap)

as were all institutional plans submitted in respect of priority 3 - health sciences. Inevitably, however, Council had to ration scarce BIUs among competing plans simply because there were not enough resources to accommodate all institutional planning ambitions.

Tables 14 and 15 outline Council's recommended BIU allocation for increased corridor levels or Base BIUs and the transition to these levels. The derivation of this allocation is outlined below.

In developing its recommended allocation of BIUs for corridor shifts, Council has not specifically addressed two important issues which should be noted. First, it does not make specific recommendations on the more than 150 proposed new academic programs submitted by institutions. However, in the course of its evaluation of institutional submissions, Council has given preference to existing programs over new programs. Second, Council has not directly addressed the impact of high growth programs except where other institutions have identified them as in conflict with their plans.

3.1 Allocative Methodology

As noted above, Council's approach to determining each institution's allocation under corridor negotiations was to determine its allocation under each priority and aggregate these results to determine the overall new corridor mid-point. For each priority, Council's decision-making process encompassed one or more of the following distribution procedures: (1) formulaic allocation; (2) qualitative evaluation based on judgement criteria; and (3) adjustment to the distribution for uncaptured circumstances and priority 7 - maintaining institutional capacity. The following sections outline the methodology for each priority.

3.2 Priority 1 Allocation Procedures

To distribute the BIUs available for priority 1, maintaining undergraduate intake in direct entry programs, Council had to address some important considerations and resolve some significant problems. Two factors should be noted. First, a significant proportion of the BIUs for this priority (18%) were allocated according to the distribution in other priorities, namely priorities 2 and 3. Therefore, the allocation methodology outlined below pertains to the remaining 26,554 BIUs.

Second, this priority speaks to the accommodation of the flow-through growth of 1988-89 levels of intake in direct-entry programs. The precise estimation and verification of the size of flow-through growth consistent across the system turned out to be difficult at an institutional level. Council was unable to get satisfactory flow-through estimates against which it could confidently assess institutional plans. The importance of this factor should not be overstated since Council never intended to fund each institution's flow-through. Its intention from the beginning was to address system-level flow-through needs.

Table 9 provides a summary of the allocation methodology used for priority 1. The formulaic calculation reflects recent enrolment growth. It does not estimate further flow-through impacts. The qualitative allocation factors reflect Council's concerns that: institutions which have demonstrated their ability to attract high quality students should be encouraged to continue to do so; the increase in undergraduate direct-entry enrolment was demonstrated to fit with institutional aims, objectives and existing strengths; and the institution's plans were based upon a demonstrably high quality planning process as reflected in the submission and were consistent with declared academic plans. For each qualitative factor, each institution's score was calculated relative to the system average and adjusted for the scale or size of the institution.

In arriving at these allocations, Council evaluated the extent to which these enrolment increases would strain existing space problems within the institutions. Projected enrolment growth was compared with the space inventory, and recent additions to it. In most cases, Council found that the increases could be accommodated within existing space, or additional space under construction or approved. Council was concerned, however, that in a number of cases, general enrolment increases to meet priority 1 may add measurably to current space pressures, particularly at Brock, Wilfrid Laurier, Ryerson and York. In reviewing the submissions, some institutions indicated that plans were contingent upon the approval of new capital projects. Other institutions chose not to tie enrolment changes to specific capital needs. Council thus faced a situation of imperfect information. It could not in fairness discount the requests of the former because the full import of the latter could not be evaluated. While allocations have not been discounted for additional capital requirements, in making the allocations Council will require that institutions provide unconditional acceptance of recommended BIUs, independent of additional capital funding.

One adjustment was made to the priority 1 allocation for Algoma College. This adjustment falls within priority 7 considerations and is intended to allow Algoma to grow and fulfil the mission outlined by Council in Advisory Memorandum 88-VIII. (For more details, see section 3.8 Priority 7 Allocation Procedures.)

3.3 Priority 2 Allocation Procedures

The distribution of the BIUs available for increasing science and engineering enrolment was divided into two separate allocations - undergraduate and graduate. In recent years enrolment trends in science and engineering have been quite dissimilar at the undergraduate and graduate levels, with undergraduate enrolments declining since the current Base period (1983-84, 1984-85 and 1985-86) and graduate enrolments increasing during the same period.

Table 9

Summary of Allocation Methodology for Priority 1 - Maintaining Undergraduate Intake

			Proportion of BIUs to be Allocated
1.0	BIUs Available		
	Number of BIUs for priority 1:	32,400	
	Number of BIUs allocated under other priorities:	5,805	
	Remaining BIUs to be allocated:	26,595	
2.0	Allocative Procedure		
2.1	Formulaic Allocation		
	Pro rata allocation on 1989-90 incremental BIUs above current Base BIUs (1)	19,796	74.4%
2.2	Qualitative Allocation		
	(a) Entering Full-time Undergraduate Averages		
	Relative entering grade 13 averages of OUAC registrants for the past three years X 1988-89 undergraduate BIUs	2,660	10.0%
	(b) Fit with aims, objectives and existing strengths		
	Relative score on a scale of 0 to 20 X 1988-89 undergraduate BIUs	2,660	10.0%
	(c) Quality of planning process, fit with academic plans		
	Relative score on a scale of 0 to 20 X 1988-89 undergraduate BIUs	1,330	5.0%
2.3	Adjustments for uncaptured circumstances and Priority 7	150	0.6%
2.4	Total	26,596	100.0%
2.5	Adjustments for allocations above requested levels		
	BIUs reallocated to remaining institutions according to their generated share (2)	3,055	

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(1) Formulaic calculations are discounted for overlap allocations to reduce the degree of double counting present in such a methodology.

(2) At a maximum, institutions were allocated the level of BIUs requested in Round 3 in the priority area. Therefore, if the allocative procedure generated a level above an institutional request the residual BIUs above planned levels were reallocated within the priority.

3.3.1 Priority 2a - Undergraduate Science and Engineering

Since the Base period, total undergraduate science and engineering enrolment has declined by approximately 6,000 BIUs. Following extensive consultation, Council established that a sound and realizable - though challenging - intermediate range objective for this priority would be to return to the all time high levels of activity recorded during the current Base years. Consequently, unlike the other priority allocations, BIUs are not allocated above the current Base, but, instead, above 1988-89 levels (the lowest enrolment level). The BIUs allocated below current BIU levels are required, therefore, to be traded off against humanities and social science enrolment levels which have risen rapidly in recent years. These are small trade-offs which must be made to fulfil the priorities established for the corridor negotiations process.

The allocation recommended by Council does recommend enrolment growth beyond current Base levels for a number of institutions which either have grown in recent years or did not decline as rapidly as other institutions. Only the incremental BIUs above Base levels for these institutions overlap with priority 1 and are included in the corridor shift totals. Council would like to encourage institutions to expand science and engineering enrolments further beyond the allocations under this priority. Institutions may freely accomplish this by expanding science and engineering at the expense of other enrolments. The enrolment targets recommended should not be considered enrolment ceilings.

One further point should be noted. Because there were both institutions which had increasing enrolment and institutions with decreasing enrolment in undergraduate science and engineering in recent years, the formulaic allocation which reflects incremental change since the Base is somewhat complex (see the description provided on line 2.1(b) of Table 10). The procedure followed, in effect, redefines the comparison point as the institution with the largest enrolment decline since the current Base level, allowing comparative enrolment change to be expressed in a positive manner.

Table 10 provides a summary of the allocation methodology used for priority 2a - increased undergraduate science and engineering enrolment. The formulaic calculation reflects both the size of institutions' undergraduate science and engineering enterprise and recent enrolment change. The qualitative allocation factors reflect Council's position that: institutions which have demonstrated their ability to attract high quality students should be encouraged to continue to do so; the case made by institutions to increase undergraduate science and engineering enrolment should be compelling; the increase in undergraduate science and engineering enrolment must be demonstrated to fit with institutions' aims, objectives and existing strengths; and institutions' plans should be based upon a demonstrably high quality planning process and fit with academic plans as reflected in institutional submissions. For each qualitative factor, each institution's score was calculated relative to the system average and adjusted for the scale or size of the institution in the area of undergraduate science and engineering.

As a result of recent enrolment declines in the fields of science and engineering, a certain amount of excess capacity exists within the system. Moreover, a number of institutions have new science and engineering buildings approved or under construction. Accordingly, Council has not discounted any of the requests for operating grant increases on account of contingent capital needs. However, it should be noted that certain submissions have revealed intentions to seek additional capital and program adjustment funding to support planned enrolment growth.

3.3.2 Priority 2b - Graduate Science and Engineering

Enrolments in graduate science and engineering programs have increased since the Base period. Unlike undergraduate science and engineering, but similar to the other priorities, the allocation applies to incremental BIUs above current Base BIU levels.

Table 11 provides a summary of the allocation methodology used for priority 2b - increased graduate science and engineering enrolment. The formulaic calculation reflects recent enrolment growth. The qualitative allocation factors reflect Council's position that: institutions which have demonstrated ability to attract peer-adjudicated research funding should be encouraged to promote graduate studies; the case made by institutions to increase graduate science and engineering enrolment should be compelling; the increase in graduate science and engineering enrolment must be demonstrated to fit with institutional aims, objectives and existing strengths; and institutions' plans should be based upon a demonstrably high quality planning process and fit with academic plans as reflected in the institutional submissions. For each qualitative factor, with the exception of peer-adjudicated research, each institution's score was calculated relative to the system average and adjusted for the scale or size of the institution's activities in graduate science and engineering.

As with other priorities, allocations have not been discounted on account of institutional intentions to pursue additional capital or program adjustment funding. It would appear that significant excess capacity currently exists within the system which, coupled with new approved projects, will accommodate growth aspirations in graduate science and engineering.

3.4 Priority 3 Allocation Procedures

Unlike the other priorities wherein aggregate institutional proposals significantly outstripped the number of BIUs available, the number of BIUs requested in Round 3 in the health sciences area roughly equalled the number of BIUs available. While the distribution among the three categories of programs - nursing, occupational therapy and physical therapy, and speech pathology and audiology - did not match that identified by Council in Round 2, the total BIUs requested in combined priority 3 did.

Table 10

Summary of Allocation Methodology for Priority 2a - Maintaining Undergraduate Science and Engineering Enrolment

			Proportion of BIUs to be Allocated
1.0	BIUs Available (Relative to 1988-89)		
	Number of BIUs for priority 2a:	6,000	
	Number of BIUs allocated under other priorities:	0	
	Remaining BIUs to be allocated:	6,000	
2.0	Allocative Procedure		
2.1	Formulaic Allocation		
	(a) Formulaic Allocation (A) Pro rata allocation on 1988-89 total undergraduate science and engineering BIUs	2,100	35.0%
	(b) Formulaic Allocation (B) Percentage change in 1988-90 undergraduate science and engineering BIUs over the current Base + 31.1% to convert all values to positives X the current Base BIUs and applied as a proportion of the system	1,800	30.0%
2.2	Qualitative Allocation		
	(a) Entering Full-time Science and Engineering Undergraduate Averages Relative entering grade 13 science and engineering averages of OUAC registrants for the past three years X 1988-89 undergraduate science and engineering BIUs	600	10.0%
	(b) Effectiveness of Case Made Relative score on a scale of 0 to 20 X 1988-89 undergraduate science and engineering BIUs	600	10.0%
	(c) Fit with aims, objectives and existing strengths Relative score on a scale of 0 to 20 X 1988-89 undergraduate science and engineering BIUs	600	10.0%
	(d) Quality of planning process, fit with academic plans Relative score on a scale of 0 to 20 X 1988-89 undergraduate science and engineering BIUs	300	5.0%
2.3	Adjustments for uncaptured circumstances and Priority 7	0	0.0%
2.4	Total	6,000	100.0%
2.5	Adjustments for allocations above requested levels BIUs reallocated to remaining institutions according to their generated share (1)	2 300	

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(1) At a maximum, institutions were allocated the level of BIUs requested in Round 3 in the priority area. Therefore, if the allocative procedure generated a level above an institutional request the residual BIUs above planned levels were reallocated within the priority.

Table 11

Summary of Allocation Methodology for Priority 2b - Increase Graduate Science and Engineering Enrolment

			Proportion of BIUs to be Allocated
1.0	**BIUs Available**		
	Number of BIUs for priority 2b:	4,700	
	Number of BIUs allocated under other priorities:	335	
	Remaining BIUs to be allocated:	4,365	
2.0	Allocative Procedure		
2.1	Formulaic Allocation		
	Pro rata allocation on 1989-90 incremental graduate science and engineering BIUs above current Base BIUs (1)	2,837	65.0%
2.2	Qualitative Allocation		
	(a) Peer-Adjudicated Research Proportion of peer-adjudicated research grants, 3-year average of NSERC and MRC (1986-87, 1987-88, 1988-89)	437	10.0%
	(b) Effectiveness of Case Made Relative score on a scale of 0 to 20 X 1988-89 graduate science and engineering BIUs	437	10.0%
	(c) Fit with aims, objectives and existing strengths Relative score on a scale of 0 to 20 X 1988-89 graduate science and engineering BIUs	437	10.0%
	(d) Quality of planning process, fit with academic plans Relative score on a scale of 0 to 20 X 1988-89 graduate science and engineering BIUs	218	5.0%
2.3	Adjustments for uncaptured circumstances and Priority 7	0	0.0%
2.4	Total	4,365	100.0%
2.5	Adjustments for allocations above requested levels		
	BIUs reallocated to remaining institutions according to their generated share (2)	20	

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(1) Formulaic calculations are discounted for overlap allocations to reduce the degree of double counting present in such a methodology

(2) At a maximum, institutions were allocated the level of BIUs requested in Round 3 in the priority area. Therefore, if the allocative procedure generated a level above an institutional request the residual BIUs above planned levels were reallocated within the priority

Council is pleased, therefore, to recommend that the BIUs requested by each institution in Round 3 be allocated in accordance with the levels requested. It makes this recommendation with the knowledge that the proposed joint program at Ottawa and Laurentian in speech pathology and audiology must receive funding approval. The BIUs allocated for this program are thus, allocated conditionally upon favourable funding approval. It should also be noted that in most instances that the expansion of programs in these health science areas may require additional renovation or new capital funds to adequately accommodate growth in these high priority fields. In arriving at this allocation, Council has not discounted proposals on account of capital or other funding requirements attached to them.

Council has noted the request from the University of Western Ontario for additional base funding to support the maintenance of programs in communicative disorders, physical therapy and occupational therapy at planned enrolment levels. As Council indicated in its letter to the University of Western Ontario in Round 2, in making this recommendation it does so on the understanding that these additional BIUs are not contingent upon the associated request for base funding being met. In this priority, as in the others, universities will be expected to indicate their willingness to accept enrolments without prior conditions before the BIUs will be allocated.[14]

3.5 Priority 4 Allocation Procedures

Council acknowledges that growth in the demand for pre-service teacher education programs far exceeds the BIUs available for allocation to this priority within the 1989-90 corridor negotiation process. The corridor negotiations, based as they are upon restricted flow-through assumptions, cannot be expected to address fully the emerging shortages in teacher education.

Recognizing that the demand for teachers so greatly exceeds the funds and BIUs available in this exercise, and that so much growth has already occurred since the current Base years, Council has in this category decided to allocate all the 3,300 BIUs set aside for this priority based on a formulaic calculation which reflects recent enrolment growth. This is justified by the fact that, for the most part these students are already in place.

Council has not undertaken qualitative evaluations of the kind used in priorities 1 and 2. It has, however, made slight adjustments to the formulaic allocation to ensure consistency with prior commitments made under the program adjustments envelope. Specifically, the formulaic allocation was adjusted to ensure that the funds allocated under the 1988-89 program adjustment envelope to expand teacher education programs are accommodated with operating grants. In one instance, that of Queen's University, the institutional allocation had to be adjusted upwards to ensure that spaces made available under the program adjustments have been funded with corridor increases. Thus current levels of activity have been accommodated, slight growth over those levels allowed for on a pro rata basis and commitments made under program adjustment programs honoured. The allocation methodology for this priority is summarized in Table 12.

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[14] Letter from Dr. H.V. Nelles to Dr. George Pedersen, President of University of Western Ontario, November 30, 1989.

Council notes that while most institutions would be able to accommodate growth in teacher education within existing capacity, a few institutions, most notably Lakehead, did reveal additional capital requirements. However, it is not expected that these capital needs will prevent the modest growth associated with allocations to these institutions. Accordingly, Council has not discounted proposals on account of capital needs identified in the submissions.

3.6 Priority 5 Allocation Procedures

The distribution of the BIUs available for graduate replacement of the professoriate reflected both current graduate activity and future faculty replacement needs. Table 13 provides a summary of the allocation methodology used in priority 5. The formulaic calculation reflects both recent graduate enrolment growth and institutional stocks of doctoral enrolments. The qualitative factors reflect Council's intention that: the priority 5 allocation respond to program areas with large retirement profiles both with respect to number of retirements and the proportion of the discipline retiring in the next decade; the allocation takes into account institutions relative research intensity as reflected by their success in attracting peer-adjudicated research funding; the allocation reflects the effectiveness of the case made for replacement of the professoriate presented by institutions; there is a demonstrated fit with institutional aims, objectives and existing strengths; and institutions' plans were based upon a demonstrably high quality planning process and fit with academic plans as reflected in the institutional submission.

3.7 Priority 6 Allocation Procedures

Most bilingual universities [Laurentian, Ottawa and York (Glendon)] received significant increases in their corridors above current levels. It is also important to note that funding is made available through the Conseil de l'Education Franco-Ontarienne (CEFO) in the form of start-up grants to support new French language programs. Therefore, Council anticipates that every effort will be made by these institutions to increase French-language enrolments.

However, French-language BIUs represent a complete overlap with the other priorities. Accordingly, growth in French-language programs has been treated as being subsumed under the allocations made in respect of priorities one through five. Some bilingual institutions indicated they experienced difficulty in identifying in the normal manner students who are studying in the French language students and are enrolled in a particular discipline hence generating a particular BIU weight). Some institutions, consequently, submitted program level BIU data which, as well as covering students instruction in french, included students being instructed in english

Table 12

Summary of Allocation Methodology for Priority 4 - Increase Pre-Service Teacher Education Enrolment

1.0 BIUs Available (Relative to 1988-89)		
Number of BIUs for priority 4	3,300	
Number of BIUs allocated under other priorities	0	
Remaining BIUs to be allocated	3,300	Proportion of BIUs to be Allocated
2.0 Allocative Procedure		
2.1 Formulaic Allocation		
Pro rata allocation on 1989-90 incremental pre-service teacher education BIUs above current Base BIUs	3,191	96.7%
2.2 Qualitative Allocation		
2.3 Adjustments for uncaptured circumstances and Priority 7	110	3.3%
2.4 Total	3,300	100.0%
2.5 Adjustments for allocations above requested levels		
BIUs reallocated to remaining institutions according to their share of generated entitlement	0	

Table 13

Summary of Allocation Methodology for Priority 5 - Graduate Replacement of the Professoriate

			Proportion of BIUs to be Allocated
1.0	BIUs Available		
	Number of BIUs for priority 5:	9,900	
	Number of BIUs allocated under other priorities:	4,700	
	Remaining BIUs to be allocated:	5,200	
2.0	Allocative Procedure		
2.1	Formulaic Allocation		
	(a) Formulaic Allocation (A) Pro rata allocation on 1989-90 incremental graduate BIUs over current Base (1)	1,040	20.0%
	(b) Formulaic Allocation (B) Pro rata allocation on total 1988-89 doctoral BIUs (1)	1,040	20.0%
2.2	Qualitative Allocation		
	(a) Fit with Retirement Profile Proportion of the generated distribution calculated by taking the number of retirements in Ontario by year 2000 by discipline X proportion of discipline retiring X institutional doctoral BIUs in discipline	1,300	25.0%
	(b) Peer-Adjudicated Research Proportion of peer-adjudicated research grants, 3 year average of SSHRC X proportion of provincial faculty (60%) + NSERC & MRC X proportion of provincial faculty (40%) (1986-87, 1987-88, 1988-89)	520	10.0%
	(c) Effectiveness of Case Made Relative score on a scale of 0 to 20 X 1988-89 graduate BIUs	520	10.0%
	(d) Fit with aims, objectives and existing strengths Relative score on a scale of 0 to 20 X 1988-89 graduate BIUs	520	10.0%
	(e) Quality of planning process, fit with academic plans Relative score on a scale of 0 to 20 X 1988-89 graduate BIUs	260	5.0%
2.3	Adjustments for uncaptured circumstances and Priority 7	0	0.0%
2.4	Total	5,200	100.0%
2.5	Adjustments for allocations above requested levels BIUs reallocated to remaining institutions according to their generated share (2)	124	

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(1) Formulaic calculations are discounted for overlap allocations to reduce the degree of double counting present in such a methodology.

(2) At a maximum, institutions were allocated the level of BIUs requested in Round 3 in the priority area. Therefore, if the allocative procedure generated a level above an institutional request the residual BIUs above planned levels were reallocated within the priority

in bilingual programs. This is understandable given that Council's request was program related and not based on language of study sections.

Despite these problems, Council feels that it is important to be able to isolate under this priority targets for enhancing French-language instruction. It recognizes that at the program level this may not be realistic given the influence of student demand for choosing french or english sections. Therefore, it is recommending the total number of BIUs related to French-language instruction, as compiled by the Ministry, form the basis for the targets in this area.

In Table 14, Council identifies target levels for total French-language BIU enrolments which are related to existing collected data. However, because these enrolments are not based on institutionally submitted plans, they should be treated as preliminary estimates which should be confirmed by Ministry officials in consultation with the institutions involved. Adjustments may have to be made as a result of such consultations and should be carried-out as soon as possible. As a result of having to use estimates at this time, Council has not recommended in Table 15 a specific transition to the new corridor mid-point for priority 6. Council recommends that at the same time Ministry official finalize the new corridor targets for this priority, they also work out appropriate transition targets. Consequently, as a result of these consultations, bilingual institutions would be required to declare the number of BIUs awarded in the corridor shift which will be made available to support French-language programs and enrolments before the transition to a new corridor begins.

3.8 Priority 7 Allocation Procedures

The final priority - maintain institutional enrolment capacity - has been applied in one instance to accommodate other Government and Council objectives not readily met through allocation procedures adopted by Council. The adjustment has been to Algoma College under priority 1. However, in line with the College's new mission, this priority was used not only to maintain intake and institutional capacity, but also to increase the college's intake and capacity to grow to a more viable size. To enable the College to continue to grow towards financial viability, 150 BIUs were added to Algoma's allocation. Council believes that with such growth the size of the College's extra-ordinary grant can be reduced. This recommendation supports Council's advice in Advisory Memorandum 88-VIII on the mission, programs and funding for Algoma College. It provides an incentive and a challenge to the College to increase enrolment.

3.9 Corridor Reduction for the Ontario College of Art

The Minister requested that Council allow the Ontario College of Art to make a corridor negotiations submission in Round 4 of the 1989-90 corridor negotiations process. In its Round 4 submission, OCA requested that its current Base BIU level, 2,583, be reduced by 83 BIUs to a new BIU level of 2,500 and that the current level of formula grants be maintained.

Table 14

Incremental Base BIUs or Growth To New Corridor Mid-Points

	PRIORITY 1	PRIORITY 2a		PRIORITY 2b	PRIORITY 3			PRIORITY 4	PRIORITY 5	PRIORITY 6	
	Maintain Direct-Entry Undergraduate Intake*	Increase Undergraduate Science and Engineering (Above 1988-89)	Net Increase Above Current Base	Increase Graduate Science and Engineering	Nursing	OT/PT	Speech Pathology and Audiology	Increase Pre-Service Teacher Education	Graduate Replacement of the Professoriate	French Language	TOTAL
Institution:											
Brock	2,146.7	121.1	167.0	(3.4)				110.2	39.1		2,296.0
Carleton	4,072.2	466.9	137.9	254.0					539.1		4,611.2
Guelph	428.6	580.1		529.7					828.5		1,257.1
Lakehead	235.9	7.0		6.4	70.2			368.0	19.0		622.9
Laurentian	1,999.5	187.5	207.4	17.8	77.0		13.3	152.7	22.9	775.9	2,175.1
L(Algoma)	281.2										281.2
L(Nipissing)	90.0										90.0
L(Hearst)	(43.0)										(43.0)
Algoma	56.8	11.6	31.6								56.8
Nipissing	389.9	1.0	0.7					246.1			636.0
Hearst	51.9									45.3	51.9
McMaster	1,467.0	1,177.4	624.7	524.7	229.1	474.8			943.4		2,410.3
Ottawa	3,354.0	670.3	796.5	506.7	261.6	348.1	133.0	437.1	947.6	1,232.2	4,738.7
Queen's	2,352.8	1,321.6	1,200.8	667.6	12.8	237.5		126.0	1,291.9		3,770.7
Toronto	2,871.6	165.9		1,017.6	194.9	146.4	3.5	297.2	2,388.3		5,557.1
Trent	1,411.7	79.2		18.7					31.5		1,443.2
Waterloo	512.8	649.6		481.8					862.6		1,375.5
Western	559.0	(87.9)		473.9	18.8	280.3	185.0		848.3		1,407.3
Wilfrid Laurier	1,424.8	47.5	86.5						64.7		1,489.4
Windsor	1,173.9	(53.8)		23.6	(2.6)			271.0	(40.7)		1,404.2
York	6,660.7	401.7		161.0				1,291.7	645.5	351.6	8,598.0
Ryerson	912.0	253.3	63.2		140.2						912.0
OISE									468.3		468.3
OCA											
Dominicain											
TOTAL	32,400.0	6,000.0	3,316.2	4,700.0	1,002.0	1,487.2	334.8	3,300.0	9,900.0	2,406.1	45,600.0

* Total undergraduate BIUs excluding Priority 4 - pre-service teacher education
Summation of Priorities 1, 4 and 5.

In its submission, OCA predicts that its Moving-Average BIUs will fall below its current corridor floor in 1990-91 and will remain below its floor until 1995-96. While Council strongly believes that the College should make every effort to increase enrolment, with current BIU levels being 11.4% below its current Base BIU level, it will be difficult for the College to avoid income loss through enrolment growth in the near future. Consequently, Council concludes that for the next five years it would be prudent to adjust downward OCA's base factors.

In Advisory Memorandum 86-VII, Council recommended that provision should be made for institutions to approach Council to negotiate a change in its Base factors and corridor to an appropriate level below it current corridor if an institution's Moving-Average BIUs are going to fall below its corridor floor.

Council also stated:

> ... Council believes that, given sufficient time, and, if necessary, some bridge funding, an institution should be able to adjust to a lower level of funding which is reflective of the reduction in the level of activity undertaken by the institution.[15]

Council recommends that OCA's Base BIUs be reduced by 83 to 2,500, and that bridge funding be provided until 1994-95 by allowing the corridor reduction without change to the institution's Base BOI. At the end of this period, one of two adjustments should be made: (1) if OCA wants the new corridor level of 2,500 to remain in place, the institution's Base BOI should be reduced proportionate to the reduction in Base BIUs below the current corridor; or (2) the institution's Base BIUs return to the current level of 2,583 and the institution's Base BOI remains unchanged.

Accordingly, Council *recommends to the Minister*.

OCUA 90-3
DOWNWARD ADJUSTMENT TO THE FORMULA GRANTS ENVELOPE BASE BIUS FOR THE ONTARIO COLLEGE OF ART

THAT the Base BIUs of the Ontario College of Art be adjusted downwards from 2,583 to 2,500 for the period 1990-91 to 1994-95, that the Base BOI of the Ontario College of Art be unadjusted from the period 1990-91 to 1994-95, and that the Base factors be reviewed at the end of this period in accordance with the considerations outlined in this memorandum.

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[15] Ontario Council on University Affairs, "Advisory Memorandum 86-VII", Thirteenth Annual Report, 1986-87, p. 167.

3.10 Recommended BIU levels

Table 14 identifies for each priority area the level of BIUs recommended to be allocated for new BIU Base levels. Except for priority 2a, these figures are expressed in terms of the incremental BIUs above current Base BIUs. For priority 2a, the first column identifies growth beyond 1988-89 while the second column shows the resulting increases above the current base.

There is considerable overlap or nesting of priorities in Table 14. The total institutional allocation for increased corridor levels is the sum of the figures for priority 1 - maintain undergraduate intake, priority 4 - increase pre-service teacher education, and priority 5 - graduate replacement of the professoriate. Priority 2a - increase undergraduate science and engineering, and two parts of priority 3 - nursing and occupational therapy and physical therapy, are subsumed under priority 1. The speech pathology and audiology portion of priority 3 is subsumed under priority 2b, which in turn is subsumed under priority 5 - graduate replacement of the professoriate. This nesting of priorities reflects in some instances complementary objectives. In the case of priority 2b - increase graduate science, and priority 5 - graduate replacement of the professoriate, the relationship observed may be complementary, but incidental. The objectives in these two priorities are different. The priority 2b is the first draw on total graduate BIUs available, with the remainder being used for graduate replacement of professoriate.

Table 15 identifies for each priority area the level of BIUs recommended to be funded in each year of the transition to new corridor levels. According to Advisory Memorandum 89-II, these levels reflect the transitional funding commitment identified in Table 3 and translated into BIUs in Table 4. Each year an institution's moving-average must meet or exceed the level identified to receive the total funding entitlement associated with these BIU levels. More specifically, the moving-average adjusted for Accessibility Envelope BIUs must reach the entitlement levels (see Advisory Memorandum 89-II for detailed description of the transitional funding arrangements).

The transitional BIU levels outlined in Table 15 were calculated in the following manner. First, the level of BIUs allocated in a particular year was the product of these final corridor mid-points in each priority multiplied by the proportion of total BIUs available in that year. The outcome of this calculation was then compared to the institutionally requested level in each priority in that year. If the calculated amount exceeded the requested level, the institution was given the requested level, with the "freed-up" BIUs in that priority being redistributed to the remaining institutions in that priority. If after all priority requests are met in a particular year and there remained BIUs available, these were allocated to other priorities in order of ranking, beginning with priority 1.

During the transition to new corridor levels, if an institution's moving-average BIUs are less than the target identified in Table 15, the funds associated with "unused" BIUs are in effect redistributed to other institutions to fund their moving-average BIU level. The accountability implications of not reaching a target are outlined in section 4.0 of this advisory memorandum.

It has been noted by Council that because of the funding and phase-out provisions of the Accessibility Envelope, institutions could be faced with a situation where institutional BIU enrolment will increase beyond current levels, but the institution will suffer a loss in incremental funding. This situation is a function of the relative level of BIU enrolment in 1986-87 compared with Base BIUs and the rate of growth of institutional BIUs.

The Accessibility Envelope funded institutional growth beyond 1986-87 levels, whereas corridor shifts are funded beyond the current Base BIU level (the average of 1983-84, 1984-85 and 1985-86). Those institutions affected are ones whose 1986-87 BIU level was below their current Base level and have grown in recent years less rapidly than others.[16]

Council believes that in those instances where institutions will temporarily lose formula grant income strictly as a result of transitional arrangements some adjustment should be made to temper income loss. Council recommends that for the three years of the phase-out of the Accessibility Envelope, institutions whose 1986-87 BIUs are less than their current Base BIU level at a minimum be funded at their 1989-90 level of Accessibility Envelope funding so long as their incremental Moving-Average BIUs above the Base plus the remaining funded Accessibility Envelope BIUs which are below the Base are equal to or greater than their total Accessibility Envelope BIUs.[17] At the end of the phase-out period this funding provision would end.

Council has made every effort, with considerable cooperation and effort from all institutions involved and the Ministry, to ensure that the data used to calculate Tables 14 and 15 are accurate and consistent. Council wishes to acknowledge and express its appreciation for the efforts involved in ensuring that the data used in the decision-making process are reliable. Nevertheless, within the time constraints of the 1989-90 corridor negotiations process, some data issues remain to be addressed.

All of the data used in the decision-making process, except for the institutions' declared desired future BIU levels, are based on existing historical data, either submitted by institutions or from other sources.[18] While every effort has been made to ensure the data used are accurate, there are some areas of information where subsequent adjustments may need to be made to the data used. For example, many of the allocations are in part based on 1989-90 BIU enrolment levels. The figures submitted by institutions and used by Council are based on winter term estimates. If the actual winter term figures differ from the estimates, the distribution could be altered. Using the methodology outlined in this memorandum, it would be appropriate for the Ministry to adjust the allocation to reflect the actual figures.

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[16] See Ontario Council on University Affairs, Advisory Memorandum 89-II, pp. 32-39.

[17] Where the "remaining funded Accessibility Envelope BIUs which are below the Base" equals 1986-87 BIUs minus Base BIUs multiplied by the proportion of total Accessibility Envelope BIUs still funded in each year of the transition.

[18] The University of Toronto in its Round 3 submission to Council reduced their current undergraduate science Base BIUs by 380 to reflect mandated enrolment reductions in Medical interns and residents. None of the other universities with medical programs made such an adjustment. Council has used the revised Base BIUs in its calculations. If Government feels such an adjustment is appropriate for dealing with mandated enrolment reductions, other institutions affected by this policy should also have their Base BIUs adjusted.

During the 1989-90 corridor negotiation process, Council has asked the institutions to discriminate among programs on the basis of USIS SPEMAJ categories rather than the audited UAR FORPOS categories generally used for operating grants calculations.[19] The choice of the unaudited SPEMAJ taxonomy of programs was deliberate. Council wished to use the most appropriate decision-support data which best reflected the priority areas. This was particularly true with respect to priority 2 - Science and Engineering. Under the UAR science category, institutions are permitted to include under honours science psychology and geography, and general science discipline coverage is not necessarily consistent from institution to institution. Council wanted to be able to compare similar program categories which were truly science disciplines.

This approach has created two problems. First, for some institutions, it was difficult for them to generate historic data on the basis of SPEMAJ categories, requiring estimation of terms other than for the Fall. Council allowed institutions with only a problem with psychology and geography to report using the UAR classification so long as they identify the size of the misclassification. Second, now that these decision-support data have been used for decision-making purposes, there remain question about data quality and accountability provisions of the SPEMAJ data. These issues will have to be addressed to ensure that the corridor shift BIUs have been fairly and reliably allocated and that the accountability provisions outlined later in this advisory memorandum are meaningful.

Council recommends that the Ministry address these data accuracy, reliability, consistency and accountability issues upon release of the advice contained in this advisory memorandum and make the necessary adjustments to data and appropriate definitional changes in consultation with the institutions and Council. Any adjustments should be made within the context, considerations and spirit of the advice contained in this memorandum. Therefore, the recommended BIU levels found in Tables 14 and 15 are subject to the possible data adjustments outlined. Nevertheless, they reflect the decision-making methodology recommended by Council.

Accordingly, Council *recommends to the Minister:*

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[19] See the Ministry of Colleges and Universities Essential Reporting Instructions for a description of these reporting classifications.

OCUA 90-4
INSTITUTIONAL CORRIDOR SHIFTS RESULTING FROM THE 1989-90 CORRIDOR NEGOTIATIONS

THAT the Formula Grants Envelope Base BIUs and associated corridors be altered in the manner outlined in this memorandum and that eligible enrolment in the transition to new Base BIU levels be allocated in accordance with the considerations and distribution outlined in this memorandum.

Council also recommends that institutions provide assurance of unconditional acceptance of the recommended allocation (adjusted for any necessary data modifications), not tied to extra-ordinary capital or operating funding needs.

Table 1 of the Appendix outlines each institution's current Base BIU level in each priority. Table 2 of the Appendix outlines each institution's new Base BIU level in each priority.

4.0 Accountability Provisions

Council and Government will need some assurance that every effort will be made to fulfil the approved corridor adjustments within each priority. By contrast, the institutions have requested that a fair degree of flexibility be afforded them in the specific accomplishment of their plans.

Council believes that sufficient flexibility can be achieved while meeting Council's and Government's needs for accountability in two ways. First, a distinction was made between decision-support information required in institutional plans during the corridor negotiation process and accountability information subsequently required to be submitted. The decision-support data requirements were detailed and specific, whereas the accountability data by which performance is to be measured is at a more general level of aggregation. These are detailed below. In Council's view, institutions will realistically be able to meet these requirements. Second, regardless of the degree of accountability imposed on institutions, there should be some flexibility in how these provisions are to be fulfilled.

Some of the considerations which informed Council's judgement are as follows:

- Council, universities and Government should not forget that the original intention of the corridor system was to provide institutions with funding stability, in part, to enhance flexibility in institutional decision-making. This objective should remain a primary component of the operating grants system and not be unduly displaced by the corridor shift priorities. It should be recognized that accountability provisions intended to deal with marginal growth can easily spill over to lock in place core BIUs which, under the corridor system are not so constrained.

Revised: June 29, 1990 (Shading denotes revisions.) Table 15a - 1990

Incremental Transitional BIUs or Growth to New Corridor Mid-Points

	PRIORITY 1	PRIORITY 2a		PRIORITY 2b	PRIORITY 3			PRIORITY 4	PRIORITY 5	PRIORITY 6	
	Maintain Direct-Entry Undergraduate Intake*	Increase Undergraduate Science and Engineering (Above 1988-89)	Net Increase Above Current Base	Increase Graduate Science and Engineering	Nursing	OT/PT	Speech Pathology and Audiology	Increase Pre-Service Teacher Education	Graduate Replacement of the Professoriate	French Language	TOTAL**
Institution:											
Brock	1,761.4	121.1	167.0	(3.4)				89.7	32.7		1,883.8
Carleton	3,341.3	92.1		207.3					450.0		3,791.3
Guelph	294.7	(304.8)		432.3					691.7		986.4
Lakehead	124.5	(156.5)		5.2	9.8			299.6	15.9		440.0
Laurentian	1,640.7	51.0	70.9	5.0	77.0			124.3	19.1		1,784.1
L(Algoma)	154.0										154.0
L(Nipissing)	73.9										73.9
L(Hearst)	(43.0)										(43.0)
Algoma	46.6	10.0	30.0								46.6
Nipissing	319.9	1.0	0.7					200.3			520.2
Hearst	42.6										42.6
McMaster	1,203.7	677.7	125.0	428.3	(25.0)	143.3			787.5		1,991.2
Ottawa	2,752.1	244.7	370.9	413.5	261.6	348.1		355.8	791.1		3,899.0
Queen's	1,930.5	847.3	726.6	561.2	(30.2)	62.5		102.6	1,078.5		3,111.6
Toronto	2,356.3	163.8		830.5	194.9	146.4	3.5	241.9	1,812.8		4,411.0
Trent	1,158.2	16.6		15.2					26.3		1,184.5
Waterloo	420.8	156.0		393.2					720.1		1,140.9
Western	458.7	(157.4)		386.8	18.8	170.8	129.4		708.2		1,166.9
Wilfrid Laurier	1,169.1	26.0	65.0						54.0		1,223.1
Windsor	963.3	(152.5)		19.2	(2.6)			220.6	(58.7)		1,125.2
York	5,457.2	212.2		131.4				1,051.5	538.9		7,047.6
Ryerson	748.3	(118.4)			140.2						748.3
OISE									391.0		391.0
OCA											
Dominicain											
TOTAL	26,374.7	1,729.8	1,556.1	3,826.0	644.4	871.2	132.9	2,686.4	8,059.0		37,120.0

* Total undergraduate BIUs excluding Priority 4 - pre-service teacher education

** Summation of Priorities 1, 4 and 5

Revised: June 29, 1990 (Shading denotes revisions.) Table 15b - 1991

Incremental Transitional BIUs or Growth to New Corridor Mid-Points

Institution	PRIORITY 1 Maintain Direct-Entry Undergraduate Intake*	PRIORITY 2a Increase Undergraduate Science and Engineering (Above 1988-89)	Net Increase Above Current Base	PRIORITY 2b Increase Graduate Science and Engineering	PRIORITY 3 Nursing	OT/PT	Speech Pathology and Audiology	PRIORITY 4 Increase Pre-Service Teacher Education	PRIORITY 5 Graduate Replacement of the Professoriate	PRIORITY 6 French Language	TOTAL**
Brock	1,915.3	121.1	167.0	(3.4)				98.2	34.9		2,048.4
Carleton	3,633.3	418.2	87.2	226.9					480.6		4,113.9
Guelph	382.4	(2.5)		473.0					738.6		1,121.0
Lakehead	210.5	7.0		3.1	70.2			328.1	16.9		555.5
Laurentian	1,784.1	87.5	107.4	11.4	77.1			136.1	20.4		1,940.6
L(Algoma)	230.0										230.0
L(Nipissing)	80.3										80.3
L(Hearst)	(43.0)										(43.0)
Algoma	50.7	11.6	31.6								50.7
Nipissing	347.9	1.0	0.7					219.4			567.3
Hearst	46.3										46.3
McMaster	1,308.9	959.7	407.0	468.6	13.8	278.3			841.0		2,149.9
Ottawa	2,992.6	480.2	606.4	452.5	261.6	348.1	33.2	389.7	844.8		4,227.1
Queen's	2,099.2	1,193.3	1,072.6	614.0	(3.2)	113.5		112.3	1,151.7		3,363.2
Toronto	2,562.2	163.8		908.7	174.2	146.4	3.5	265.0	2,129.0		4,956.1
Trent	1,259.6	66.7		16.7					28.1		1,287.7
Waterloo	457.6	377.5		430.3					769.0		1,226.6
Western	498.8	(112.3)		423.2	18.8	227.8	185.0		756.2		1,255.0
Wilfrid Laurier	1,271.2	39.0	78.0						57.6		1,328.8
Windsor	1,047.4	(236.2)		21.1	(50.5)			241.6	(40.7)		1,248.3
York	5,934.0	382.9		143.7				1,151.5	575.5		7,661.0
Ryerson	813.7	181.5			140.2						813.7
OISE									417.5		417.5
OCA											
Dominicain											
TOTAL	28,882.9	4,140.1	2,557.9	4,189.8	702.1	1,114.1	221.7	2,941.9	8,821.1		40,645.8

* Total undergraduate BIUs excluding Priority 4 - pre-service teacher education

** Summation of Priorities 1, 4 and 5

Table 15c - 1992

Incremental Transitional BIUs or Growth to New Corridor Mid-Points

Institution:	PRIORITY 1 Maintain Direct-Entry Undergraduate Intake*	PRIORITY 2a Increase Undergraduate Science and Engineering (Above 1988-89)	Net Increase Above Current Base	PRIORITY 2b Increase Graduate Science and Engineering	PRIORITY 3 Nursing	OT/PT	Speech Pathology and Audiology	PRIORITY 4 Increase Pre-Service Teacher Education	PRIORITY 5 Graduate Replacement of the Professoriate	PRIORITY 6 French Language	TOTAL**
Brock	2,004.7	121.1	167.0	(3.4)				102.9	36.5		2,144.1
Carleton	3,802.8	468.9	137.9	237.2					503.4		4,306.2
Guelph	400.3	257.7		494.6					773.7		1,173.9
Lakehead	220.3	7.0		6.0	70.2			343.6	17.7		581.7
Laurentian	1,867.3	187.5	207.4	16.6	77.0		13.3	142.6	21.3		2,031.2
L(Algoma)	262.6										262.6
L(Nipissing)	84.1										84.1
L(Hearst)	(43.0)										(43.0)
Algoma	53.1	11.6	31.6								53.1
Nipissing	364.1	1.0	0.7					229.8			593.9
Hearst	48.4										48.4
McMaster	1,369.9	1,027.6	474.9	490.0	140.6	204.8			880.9		2,250.8
Ottawa	3,132.2	670.2	796.5	473.1	261.6	348.1	81.3	408.2	884.9		4,425.2
Queen's	2,197.2	1,321.6	1,200.8	642.1	12.8	168.5		117.7	1,206.4		3,521.2
Toronto	2,681.7	98.0		960.2	194.9	146.4	3.5	277.5	2,230.1		5,189.3
Trent	1,318.3	79.2		17.4					29.4		1,347.7
Waterloo	478.9	649.6		449.9					805.5		1,284.4
Western	522.0	(93.4)		442.6	18.8	280.3	185.0		792.1		1,314.1
Wilfrid Laurier	1,330.5	47.5	86.5						60.4		1,390.9
Windsor	1,096.3	(118.6)		22.0	(21.5)			253.1	(40.7)		1,308.6
York	6,210.9	401.7		150.3				1,206.2	602.8		8,019.8
Ryerson	851.7	253.3	63.2		140.2						851.7
OISE									437.3		437.3
OCA											
Dominicain											
TOTAL	30,254.2	5,391.5	3,166.4	4,398.7	894.6	1,148.2	283.0	3,081.4	9,241.6		42,577.3

* Total undergraduates BIUs excluding Priority 4 - pre-service teacher education

** Summation of Priorities 1, 4 and 5

Table 15d - 1993

Incremental Transitional BIUs or Growth to New Corridor Mid-Points

Institution:	PRIORITY 1 Maintain Direct-Entry Undergraduate Intake*	PRIORITY 2a Increase Undergraduate Science and Engineering (Above 1988-89)	Net Increase Above Current Base	PRIORITY 2b Increase Graduate Science and Engineering	PRIORITY 3 Nursing	OT/PT	Speech Pathology and Audiology	PRIORITY 4 Increase Pre-Service Teacher Education	PRIORITY 5 Graduate Replacement of the Professoriate	PRIORITY 6 French Language	TOTAL**
Brock	2,044.7	115.5	161.3	(3.4)				106.0	37.3		2,186.9
Carleton	3,878.6	447.0	116.0	242.0					513.4		4,392.1
Guelph	408.2	547.1		504.5					789.1		1,197.3
Lakehead	224.7	6.6		6.1	67.0			350.5	18.1		593.3
Laurentian	1,904.5	178.8	198.7	16.9	73.6		13.3	145.4	21.8		2,071.7
L(Algoma)	267.9										267.9
L(Nipissing)	85.7										85.7
L(Hearst)	(43.0)										(43.0)
Algoma	54.1	11.1	31.1								54.1
Nipissing	371.3	1.0	0.6					234.4			606.7
Hearst	49.4										49.4
McMaster	1,397.2	1,122.5	569.8	499.8	218.8	330.8			898.5		2,295.7
Ottawa	3,194.6	639.1	765.3	482.6	249.9	348.1	116.4	416.3	902.5		4,513.4
Queen's	2,241.0	1,260.0	1,139.2	664.9	12.2	211.5		120.0	1,230.5		3,591.4
Toronto	2,735.2	156.2		969.2	186.1	146.4	3.5	283.1	2,274.6		5,292.9
Trent	1,344.6	75.5		17.8					30.0		1,374.6
Waterloo	488.5	619.3		458.9					821.6		1,310.0
Western	532.4	(87.9)		451.4	18.0	280.3	185.0		807.9		1,340.4
Wilfrid Laurier	1,357.0	45.3	84.3						61.6		1,418.6
Windsor	1,118.2	(53.8)		22.5	(5.1)			258.1	(40.7)		1,335.5
York	6,334.7	383.0		153.3				1,230.2	614.8		8,179.7
Ryerson	868.6	241.5	51.4		133.9						868.6
OISE									446.0		446.0
OCA											
Dominicain											
TOTAL	30,858.2	5,707.9	3,117.7	4,476.3	954.3	1,326.[illegible]	318.2	3,143.0	9,426.9		43,428.1

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* Total undergraduate BIUs excluding Priority 4 - pre-service teacher education.

** Summation of Priorities 1, 4 and 5.

Table 15a - 1994

Incremental Transitional BIUs or Growth to New Corridor Mid-Points

Institution	PRIORITY 1 Maintain Direct-Entry Undergraduate Intake*	PRIORITY 2a Increase Undergraduate Science and Engineering (Above 1988-89)	Net Increase Above Current Base	PRIORITY 2b Increase Graduate Science and Engineering	PRIORITY 3 Nursing	OT/PT	Speech Pathology and Audiology	PRIORITY 4 Increase Pre-Service Teacher Education	PRIORITY 5 Graduate Replacement of the Professoriate	PRIORITY 6 French Language	TOTAL**
Brock	2,069.1	116.7	162.6	(3.4)				106.2	37.7		2,213.0
Carleton	3,925.0	451.9	120.9	244.9					519.6		4,444.6
Guelph	413.1	559.1		510.5					798.6		1,211.7
Lakehead	227.4	6.7		6.2	67.6			354.7	18.3		600.4
Laurentian	1,927.3	180.7	200.6	17.1	74.3		12.8	147.2	22.0		2,096.5
L(Algoma)	271.1										271.1
L(Nipissing)	86.8										86.8
L(Hearst)	(43.0)										(43.0)
Algoma	54.8	11.2	31.2								54.8
Nipissing	375.8	1.0	0.6					237.2			613.0
Hearst	50.0										50.0
McMaster	1,413.9	1,134.7	582.1	506.8	220.8	457.6			909.2		2,323.2
Ottawa	3,232.8	646.1	772.3	488.3	252.2	336.5	128.2	421.3	913.3		4,567.4
Queen's	2,267.8	1,273.8	1,153.0	662.7	12.3	228.9		121.4	1,245.2		3,634.4
Toronto	2,767.9	157.9		980.8	187.8	141.1	3.4	286.4	2,301.9		5,356.2
Trent	1,360.7	76.4		18.0					30.4		1,391.1
Waterloo	494.3	626.1		464.4					831.4		1,325.7
Western	538.8	(87.9)		456.8	18.1	270.2	178.3		817.6		1,356.4
Wilfrid Laurier	1,373.3	45.8	84.8						62.3		1,435.6
Windsor	1,131.5	(53.8)		22.7	(2.6)			261.2	(40.7)		1,352.0
York	6,410.4	387.2		155.1				1,245.0	622.2		8,277.5
Ryerson	879.0	244.1	54.0		135.1						879.0
OISE									451.4		451.4
OCA											
Dominicain											
TOTAL	31,227.6	5,777.8	3,162.1	4,529.9	965.7	1,433.4	322.7	3,180.6	9,540.3		43,948.5

* Total undergraduate BIUs excluding Priority 4 - pre-service teacher education

** Summation of Priorities 1, 4 and 5

- At the same time, the incremental BIUs to be funded beyond current corridor levels have Government policy priorities associated with them which must be respected and promoted.

- It became clear from the Round 3 institutional consultation meetings that institutions are more concerned with institutional autonomy than about protection from their neighbours' actions. Therefore, the accountability mechanisms chosen are primarily intended to ensure that Government's needs are reasonably met.

- The accountability mechanisms must provide institutions with a reasonable degree of flexibility; overly specific accountability could unduly restrict institutions' ability to reach corridors. This flexibility can be exercised by allowing some variation from target BIU levels and some flexibility in the timing of when the accountability provisions must be met.

- The accountability mechanisms chosen should apply only to the current corridor negotiation exercise.

The accountability mechanisms put forward by Council have elements within them which relax accountability requirements somewhat, while at the same time give Government some assurance that, within reason, priority enrolment growth will be achieved. Institutions, which through the corridor negotiation process agree to enrolment increases beyond their current corridor mid-point levels, will be expected to meet their targets in each priority area. However, universities will be afforded a reasonable degree of flexibility in timing and small deviations from the target level to accommodate uncontrollable circumstances in meeting these objectives.

4.1 Total Moving-Average BIUs

The first level of accountability is the total number of eligible BIUs in an institution's moving-average. For institutions to receive their negotiated level of funding, each year their moving-average must equal or exceed the level awarded. There is no flexibility in this provision. If the enrolments are not present, funding will not be provided. Formula grants will not be provided for BIU growth beyond the new corridor level from incremental funds provided for the corridor negotiation exercise.

4.2 Government Priority BIU Targets

The second level of accountability concerns the identified Government priority areas. Specific accountability provisions have been developed for each priority with appropriate levels of aggregation and flexibility.

4.2.1 Level of disaggregation for accountability and allowable variation from targets

In each priority area, Council is not concerned whether or not an institution exceeds its target level. It is concerned about not reaching the target level. In addition to monitoring the achievement of Government priority targets at an appropriate level of aggregation, each target should allow for some error variation from the identified target level. Therefore, it will recommend that an institution be deemed to be on target if it falls within a certain percentage of its approved objective in that priority area without loss of income. However, if an institution "under-shoots" a target by an amount larger than the error rate it will have the difference between the target level of BIUs and actual BIUs counted for accountability purposes in that priority area declared ineligible and subtracted from the institution's moving-average BIUs when monitored (details concerning the timing of monitoring are outlined below).

The Government priority BIU targets recommended to be monitored for accountability purposes and the degree of variation below target levels to be allowed without penalty are outlined below.

Priority 1 - Maintain full-time intake into direct entry programs

This priority is to be monitored on the basis of total capacity and not on the level of full-time intake. That is, the level of BIUs in direct entry undergraduate programs in all years of study will be monitored. This will allow institutions to make decisions as to the type of student to be enroled, part-time or full-time, as well as to accommodate fluctuations in acceptances and retention rates while ensuring that undergraduate capacity is maintained.

Given the relatively large size of this target area in all institutions, a variation of 5% will be allowed without penalty.

Priority 2 - Science and Engineering

This priority is to be monitored on the basis of total undergraduate and graduate science and engineering BIUs added together. By aggregating total undergraduate and graduate science and engineering BIUs, institutions will have the flexibility to substitute BIUs at a particular level of study if the demand for these programs does not materialize with increased enrolments from another level of study or another science or engineering discipline. This may help overcome any demand deficiencies at the undergraduate level.

Institutions will be allowed to "under-shoot" their targets in this priority without penalty by 5%.

Priority 3 - Health Sciences

a) Nursing

This priority is to be monitored at the undergraduate total program BIU level.

While the distinction between direct entry and post-RN streams is important for decision making, no distinction will be recommended for accountability purposes.

Institutions will be allowed to "under-shoot" their targets without penalty by 10%, reflecting the large fluctuation often found in enrolments in the post-RN stream.

b) Speech Pathology and Audiology

This priority is to be monitored as one program. That is, the sum of the Master's level BIUs in both speech pathology and audiology streams will be tracked.

Institutions will be allowed to "under-shoot" their targets without penalty by 5%.

c) Occupational Therapy/Physical Therapy

This priority is to be monitored as one program. That is, the sum of the BIUs in occupational therapy and physical therapy streams will be tracked.

Institutions will be allowed to "under-shoot" their targets without penalty by 5%.

Priority 4 - Pre-service Teacher Education

This priority is to be monitored as total Pre-service Teacher Education BIUs. No distinction will be made as to specialty.

Institutions will be allowed to "under-shoot" their targets without penalty by 5%.

Priority 5 - Graduate Enrolment to Replace the Professoriate

Since the numbers involved in this priority are very small and very large error rates would need to be employed, the Committee will recommend that no special accountability provision be implemented and that the BIUs awarded not be monitored separately. It is in effect to be treated as part of the residual between monitored priority area BIUs and total eligible BIUs to be funded.

Priority 6 - French Language Programs

Council has identified a new methodology for setting corridor targets for French-language programs. It recommends that further consultation on these levels be undertaken by the Ministry with respect to accountability implication. For accountability purposes, Council recommends that the total level of BIU enrolments instructed in the French-language be monitored.

Institutions should be allowed to "under-shoot" their targets without penalty by 5%.

4.2.2 Timing of accountability monitoring

i) Transition to new corridor mid-point

Institutions will be expected to achieve their priority targets during the transition to their new corridor mid-point. Annual targets for each priority will be identified at the end of the corridor negotiation process. However, this expectation is qualified in a number of ways.

First, during the transition to a new corridor mid-point, an institution's current-year level of BIU enrolment will not be expected to reach the identified annual target for each priority. Second, Council sees no need to monitor the achievement of priority targets in 1990-91 and 1991-92 and recommends that institutions not be subject to any review of priority target achievement in these years. However, it does think that institutions should be expected to adhere to the targets in a reasonable manner during the transition to their new corridors. Therefore, beginning in 1992-93, it recommends that the accountability provisions pertaining to priority areas outlined below be applied annually until such time as the institution reaches the mid-point of its new corridor and priority area accountability provisions are met.

Third, in 1992-93 and beyond, flexibility should be introduced in transitional years by both allowing for the smoothing of annual fluctuations in enrolment and providing for quick recognition of enrolment growth in later years. Consideration was given to employing only the growing five-year moving-average upon which institutions total funding will be calculated. However, it was pointed out that in succeeding years, with an increasing discount for new enrolments, it becomes increasingly difficult to make up any lost ground from previous years. To overcome this problem, it is recommended that for each Government priority area the greater of either the 5-year growing moving-average BIUs or the previous year's BIUs (the slip year) be used for accountability comparisons. [For example, for the 1992-93 funding year the accountability error rate will be compared to the greater of 1991-92 BIUs or [(1989-90 + 1990-91 + 1991-92) / 3]. These enrolments are referred to as **measured BIUs**. In this way institutions will have protection from enrolment fluctuations if needed while at the same time being able to overcome past years' deficiencies.]

ii) New corridor mid-point

Before an institution is afforded the protection from enrolment fluctuation and the flexibility of its new corridor, it must satisfy two conditions. First, the institution's growing 5-year moving-average of **total BIUs** must reach its new corridor mid-point. Second, its **measured BIUs** in priority areas must meet the new corridor levels within the tolerance allowed. When these two conditions are met, institutions will have achieved all accountability requirements. At that point, the corridors will operate as outlined in Advisory Memorandum 86-VII and provide freedom of movement without change in formula grants within the ± 3% corridor of total BIUs. Institutions should achieve both of these conditions by the 1995-96 funding year so that all the committed funds are expended.

iii) Impact of system demand

If enrolment demand declines significantly in a particular area, provision will be made to allow a transfer of BIU entitlements into higher demand areas. With a growing 5-year moving-average being used to monitor enrolment levels there should be sufficient time to negotiate a satisfactory solution to such a problem before it has an adverse impact on institutions' priority area funding (it will include at least 3 years in the first year it will be monitored).

4.3 Summary of Accountability provisions

4.3.1 Transition to New Corridor

For each of the funding years 1992-93 and beyond, the following factors apply:

- total institutional BIUs in the growing 5-year moving average must equal or exceed target level in the funding year.
- if total BIUs in the growing 5-year Moving-average fall below the target level, funding will be provided up to the level of the moving-average and not at the target level.
- for each Government priority, the greater of an institution's growing 5-year moving-average or its slip-year BIU enrolment ("measured BIUs") must equal or exceed the floor created by the appropriate error rate of the Government priority BIU target level.
- if an institution's **measured BIU** enrolment falls short of the identified error rate, the institutions will have the difference between the priority's error rate floor level and **measured BIU level** subtracted from the moving-average BIUs.
- if an institution's BIU enrolment falls to the current Base BIU level, it will be afforded the protection of the current corridor.
- the accountability factors and error rates for each Government priority BIU target are as follows: (all error rates are applied to the marginal growth in BIUs between the current Base BIU level and the target level)

Priority 1 - total BIUs in direct-entry undergraduate programs in all years of study
- error rate of -5%

Priority 2 - total undergraduate and graduate science and engineering BIUs
- error rate of -5%

Priority 3 - Nursing - total undergraduate BIUs in Nursing program
- error rate of -10%
- Speech Pathology and Audiology - total Master's BIUs in these programs
- error rate of -5%
- OT/PT - total undergraduate BIUs in these programs
- error rate of -5%

Priority 4 - total Pre-service Teacher Education BIUs
- error rate of -5%

Priority 5 - no accountability provision

Priority 6 - total BIU enrolment instructed in the French-language
- error rate of -5%

4.3.2 New corridor level

When an institution first reaches its new corridor mid-point level, before it receives the protection and freedom of the new ± 3% corridor, it must satisfy two conditions:

(1) total growing 5-year moving-average BIUs must be equal to or greater than the mid-point of the new corridor; and

(2) for each Government priority, the greater of an institution's growing 5-year moving-average or its slip-year BIU enrolment must equal or exceed the floor created by the appropriate error rate of the Government priority BIU target level (the error rates and their calculation are the same as outlined for the transition period).

When these conditions are met an institution is afforded a new ± 3% corridor around its new mid-point and is given the freedom inherent in the corridor as outlined in Advisory Memorandum 86-VII.

Accordingly, Council *recommends to the Minister:*

OCUA 90-5
ACCOUNTABILITY PROVISIONS FOR THE TRANSITION TO NEW INSTITUTIONAL CORRIDORS AND BASE BIUS

THAT the accountability provisions for the transition to new institutional corridors and Base BIUs be applied in the manner outlined in this Advisory Memorandum.

This recommendation is given in the context of the data concerns outlined in section 3.10 of this advisory memorandum. The appropriate target levels should be set according to provisions therein.

5.0 Conclusion

In many respects corridor negotiation has been a novel and unprecedented experience for the system. We have jointly ventured into new territory, but Council believes that its methods offer some guidance for future endeavours. Throughout, the institutions and the Council of Ontario Universities have extended their full co-operation to Council. Without the positive approach of the institutions and their collegial willingness to co-operate, Council would not have been able to develop its advice within the time allotted on such a broad basis of planning.

As a direct result of this co-operation, Council believes it has been able to carry out the Minister's instructions to follow a "coordinated and planned approach." Furthermore, the experience gained provides guidance for future adjustments.

Council has been faithful to the Minister's cautionary instructions to take care that in the allocation of additional BIUs the viability of existing programs would not be jeopardized. Council has also done as much as possible to minimize the absolute losses of income that flowed from institutional choices and the results of the competition.

No process which reduces collective expectations by approximately 50% can be expected to produce widespread satisfaction among the expectant. Nor can it be said with confidence that the 45,600 BIUs provided by Government will be enough to accommodate additional growth expected during the early 1990s or the total demand for new teachers, faculty and health care professionals in English and French. However, with the BIUs at its disposal Council is convinced that it has produced an allocation that fairly balances competing objectives. The total is a reasonable sum to take into account the flow-through of past enrolment increases; the distribution of the BIUs among the priorities would appear to have general support, and Council believes the allocation of BIUs to the institutions is justified according to the criteria used within each priority. The total allocation creates some small inter-institutional adjustment, but that was inevitable given the steering effect of the priorities and the proportion of BIUs available within those priorities. Institutions whose plans placed greater emphasis upon maintaining intake and upon teacher education received proportionately more than those universities whose planning and priorities led in other directions. The outcome, Council believes, is fair and just and has been arrived at following an open process of system-wide negotiated planning. In the end, Council had to make choices. In doing so, Council has taken a broad range of factors into account including, on the one hand, quantitative factors such as recent responses to the accessibility challenge and, on the other hand, evaluative and qualitative criteria with which to assess institutional plans submitted in Rounds 1 and 3, designed so as to ensure that additional BIUs are efficiently and effectively added to the system. While Council's decision-making process balanced quantitative and qualitative considerations, it must be emphasized that the corridor negotiation process was, to a large extent, driven by the overriding priority established for the exercise - that of maintaining undergraduate intake - which by its nature called for a proportionately strong reliance on a quantitative formulaic allocation.

As indicated in the introduction to this advisory memorandum, the benefits resulting from this process of corridor adjustment exceed a simple distribution of BIUs. The system learned a great deal about itself in the process and, in the future, institutions will be able to plan in fuller knowledge of the intentions of others. Similarly, Government has a much clearer knowledge of precisely how the system as a whole, and particular institutions within it, might respond to societal needs in the future.

Dr. H.V. Nelles,
Chairman

March 16, 1990

Appendix

Table 1

Current Corridor Mid-Point BIUs

	PRIORITY 1	PRIORITY 2a	PRIORITY 2b	PRIORITY 3			PRIORITY 4	PRIORITY 5	PRIORITY 6	
	Undergraduate BIUs(1)	Undergraduate Science and Engineering	Graduate Science and Engineering	Nursing	OT/PT	Speech Pathology and Audiology	Pre-Service Teacher Education	Graduate Replacement of the Professoriate	French Language	TOTAL
Institution:										
Brock	7,520.3	934.9	128.4				594.2	710.5		8,824.9
Carleton	14,697.4	4,270.9	1,409.4					4,077.4		18,774.8
Guelph	18,348.3	11,179.8	2,686.5					3,594.2		21,942.4
Lakehead	5,556.5	2,840.4	158.0	471.1			562.5	464.8		6,583.8
Laurentian	5,905.4	1,530.6	119.3	591.2			161.2	265.7	1,132.1	6,332.2
L(Algoma)	191.0									191.0
L(Nipissing)	398.5									398.5
L(Hearst)	128.0									128.0
Algoma	326.0	60.0								326.0
Nipissing	725.6	10.8					401.3			1,126.9
Hearst	52.0								41.5	52.0
McMaster	18,292.1	9,460.2	2,847.4	720.9	65.2			5,304.1		23,596.1
Ottawa	21,800.7	7,977.9	1,673.3	821.7			615.6	5,443.8	9,121.7	27,860.2
Queen's	18,156.7	9,471.4	2,526.8	523.2	297.5		1,396.2	5,568.3		25,121.2
Toronto	58,360.3	25,667.3	9,160.7	695.9	490.3	125.8	1,729.8	17,803.3		77,893.4
Trent	4,556.0	1,003.0	67.0					102.0		4,658.0
Waterloo	23,604.8	13,008.2	3,697.9					5,416.3		29,021.0
Western	30,241.6	12,725.0	2,604.4	643.2	366.2	148.5	1,363.7	6,513.8		38,119.1
Wilfrid Laurier	7,177.0	321.0						1,176.0		8,353.0
Windsor	12,179.3	3,600.9	813.1	787.7			681.4	2,170.7		15,031.3
York	32,947.4	3,982.7	550.0				424.6	6,090.9	420.5	39,462.9
Ryerson	16,518.9	6,028.6		726.8						16,518.9
OISE	131.6							4,382.1		4,513.7
OCA ·	2,583.0									2,583.0
Dominicain	49.90									49.9
TOTAL	300,440.1	114,073.7	28,446.2	5,981.7	1,220.2	274.3	7,930.5	69,083.8	10,715.8	377,454.4

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(1) Total Undergraduate BIUs excluding Priority 4 - pre-service teacher education.

(2) French language BIUs not available for L(Hearst).

Revised: June 29, 1990 (Shading denotes revisions.)

Appendix

Table 2

New Corridor Mid-Point BIUs (Current Mid-Point plus Increment) (3)

	PRIORITY 1	PRIORITY 2a	PRIORITY 2b	PRIORITY 3			PRIORITY 4	PRIORITY 5	PRIORITY 6	
	Undergraduate BIUs(1)	Undergraduate Science and Engineering	Increase Graduate Science and Engineering	Nursing	OT/PT	Speech Pathology and Audiology	Increase Pre-Service Teacher Education	Graduate Replacement of the Professoriate	French Language	TOTAL
Institution:										
Brock	9,666.9	1,101.9	125.0				704.4	749.6		11,120.9
Carleton	18,769.5	4,408.8	1,663.4					4,616.5		23,386.0
Guelph	18,776.9	10,900.4	3,218.2					4,422.7		23,199.6
Lakehead	5,792.5	2,190.7	164.4	541.3			930.5	483.8		7,206.8
Laurentian	7,904.9	1,738.0	137.0	668.3		13.3	313.9	288.5	1,908.0	8,507.3
L(Algoma)	472.2									472.2
L(Nipissing)	488.5									488.5
L(Hearst) (2)	85.0									85.0
Algoma	384.8	91.6								384.8
Nipissing	1,115.5	11.4					647.4			1,762.9
Hearst	103.9								86.8	103.9
McMaster	19,759.0	10,084.9	3,372.2	960.0	540.0			6,247.4		26,006.4
Ottawa	25,154.7	8,774.5	2,179.9	1,083.3	348.1	133.0	1,052.7	6,391.5	10,353.9	32,598.9
Queen's	20,509.4	10,672.3	3,216.4	536.0	535.0		1,522.2	6,860.3		28,891.9
Toronto	61,222.0	24,901.0	10,178.3	890.8	645.7	129.3	2,027.0	20,191.5		83,440.5
Trent	5,967.7	898.2	85.7					133.5		6,101.2
Waterloo	24,117.6	12,860.4	4,179.6					6,278.9		30,396.5
Western	30,800.6	11,888.3	3,078.3	662.0	646.5	333.5	1,363.7	7,362.1		39,526.4
Wilfrid Laurier	8,601.8	407.5						1,240.7		9,842.5
Windsor	13,353.2	2,787.7	836.7	785.1			952.4	2,129.9		16,435.5
York	39,598.1	3,716.3	711.0				1,716.3	6,736.5	772.1	48,050.9
Ryerson	17,430.8	6,091.8		867.0						17,430.8
OISE	131.6							4,850.5		4,982.1
OCA	2,500.0									2,500.0
Dominicain	49.9									49.9
TOTAL	332,757.1	113,525.7	33,146.1	6,983.7	2,715.4	609.1	11,230.5	78,983.8	13,121.0	422,971.4

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(1) Total Undergraduate BIUs excluding Priority 4 - pre-service teacher education

(2) French language BIUs not available from L(Hearst).

(3) These data reflect the summation of Table 14 and Appendix Table 1 except for Priority 2a which is the summation of 1988-89 BIUs and the final allocation for this priority above 1988-89. These data also include, however, OCA's corridor reduction which is not reflected in Table 14

90-II The Allocation of the Government's Operating Support for the University System in 1990-91

The Minister of Colleges and Universities informed Council on November 29, 1989 that, for 1990-91, a total of $1,804.8 million in operating grants will be made available for the university system. Of this amount, Council is to advise on the allocation of $1,765.452 million to Ontario universities.

The remaining operating grants are divided in the following manner:

(i) $25.048 million for faculty renewal; and

(ii) $14.3 million is retained by the Ministry of Colleges and Universities for line-budget items.[1]

In addition to the operating grants announcement, the Minister announced that formula fee rates for all students will increase by 8% in 1990-91. This policy applies to both domestic and visa students.

In Advisory Memorandum 89-VI, Council recommended that the operating grants available to cover the costs of Council's basic funding objectives be increased by 8.6% in 1990-91. The 4.7% increase in funds made available by Government to support Council's basic funding objectives (formula and extra-formula grants) in 1990-91 fell substantially short of the needs identified in that memorandum.

This Memorandum presents advice on the distribution of the $1,765.452 million available for Council's basic funding objectives. This includes recommendations on the allocation of the mission-related, institution-specific funding envelopes in the distribution of differentiation grants, Northern Ontario operations grants, Northern Ontario mission grants and bilingualism grants. Council also makes recommendations on the allocation of the program adjustments envelope, research overhead/infrastructure envelope, international graduate student fee waivers and the accessibility envelope for the disabled. In addition, Council recommends on the allocation of the transitional funding made available to support upward corridor shifts and the flow-through of accessibility enrolment in 1990-91. The remaining funds are allocated under the formula grants envelope.

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[1] Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H.V. Nelles, November 29, 1989.

1.0 Extra-Formula Grants

1.1 Mission-Related Institution-Specific Funding Envelopes

1.1.1 Differentiation Grants

Council's Advisory Memorandum 80-VI established differentiation grants as a new category of extra-formula funding intended to assist institutions which accept a clearly differentiated role, demonstrate their intention to pursue their academic strengths efficiently and effectively, and require special funding to do so. Trent University is the only institution to have received a differentiation grant.

Council initiated a thorough review to identify and estimate the incremental cost of Trent's differentiation, the results of which are outlined in Advisory Memorandum 89-IV. As a result of the findings of the study, Council recommended in Advisory Memorandum 89-III that the level of the differentiation grant should be increased marginally and that in the future it should be escalated annually by the percentage increase in base funding. Consistent with the recommendation of that memorandum, Council therefore recommends that the level of the differentiation grant be escalated by 4.7%, the percentage increase in base funding for 1990-91.

Accordingly, Council *recommends to the Minister:*

OCUA 90-6
DIFFERENTIATION GRANT FOR TRENT UNIVERSITY 1990-91

THAT a differentiation grant of $1,665,000 be made to Trent University in 1990-91.

1.1.2 Northern Ontario Grants

In Advisory Memorandum 88-III, Council reviewed the calculation of the Northern Ontario grants. This review focused on identifying two types of costs of Northern institutions: the costs of being institutions "in the North"; and the costs of being institutions "for the North". Council confirmed the existing funding procedures and identified two types of grants which should continue in the future: Northern Ontario operations grants and Northern Ontario mission grants.

1.1.2.1 Northern Ontario Operations Grants

The findings of Council's Northern Ontario grants review suggested that the grant levels generated by the "mini-formulae" outlined in Advisory Memorandum 75-VII closely approximated the incremental costs of institutions operating in the North. This formula was modified slightly in Advisory Memorandum 88-III to recognize the impact of corridor funding system.

Therefore, for 1990-91, the value of the Northern Ontario operations grants for Lakehead and Laurentian universities, and Laurentian's affiliated colleges, is calculated according to the "mini-formulae" outlined in Advisory Memorandum 88-III.

Accordingly, Council recommends to the Minister:

OCUA 90-7
NORTHERN ONTARIO OPERATIONS GRANTS 1990-91

THAT Northern Ontario operations grants in 1990-91 be made in the following amounts:

Lakehead	$3,303,000
Laurentian	3,185,000
Algoma	252,000
Laurentian (Algoma)	76,000
Nipissing	613,000
Laurentian (Nipissing)	157,000
Hearst	128,000
Laurentian (Hearst)	86,000

1.1.2.2 Northern Ontario Mission Grants

In Advisory Memorandum 88-III, Council stated:

> ...Council now believes that the special Northern Ontario grant for activities "for the North" should be divided among the institutions by using the same proportions as calculated for the Northern Ontario Operations grants. While not requiring a competitive challenge fund for distribution, these grants should not be considered block grants to be used for normal operating expenditures. The planned and actual expenditure of these grants should be monitored to ensure that these funds are used for mission-related activities.[2]

Council went on to recommend that the Northern Ontario mission grants be distributed to Northern institutions in the same proportions as in the Northern Ontario operations grants.

Council indicated in Advisory Memorandum 87-XIII that before increasing the size of the total grants available for Northern Ontario mission grants from the initial

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[2] Ontario Council on University Affairs, Advisory Memorandum 88-III, Northern Ontario Grants Review, p. 23.

$3 million it was important for institutions to demonstrate the value or effectiveness of the projects undertaken in meeting these institutions' mission of being institutions "for the North". Council continues to believe it is appropriate to maintain the level of grants at the initial level of $3 million until an initial evaluation, as outlined in Advisory Memorandum 88-III, can be undertaken.

Accordingly, Council *recommends to the Minister:*

OCUA 90-8
NORTHERN ONTARIO MISSION GRANTS 1990-91

THAT for 1990-91, Northern Ontario Mission Grants of $3,000,000 be made in the following amounts:

Lakehead	$1,270,000
Laurentian	1,225,000
Algoma	97,000
Laurentian (Algoma)	29,000
Nipissing	236,000
Laurentian (Nipissing)	61,000
Hearst	49,000
Laurentian (Hearst)	33,000

1.1.3 Bilingualism Grants

In Advisory Memorandum 89-III, Council reported on the results of the study of incremental costs associated with bilingualism in Ontario universities. Based on 1987-88 data, the study indicated that the total cost of bilingualism activities was $21.221 million in that year. When escalated by the percentage increase in operating grants for 1988-89, 1989-90 and 1990-91, the estimated 1990-91 incremental costs of bilingualism are $24.147 million.[3] These costs exceed the bilingualism grants' allocation for 1990-91 by $1.747 million. In Advisory Memorandum 89-VI Council recommended that additional funding be provided in recognition of the estimated shortfall in bilingualism grants.[4] In announcing total operating support for 1990-91, the Minister did not however specifically respond to this shortfall.

The $22.4 million available for distribution in 1990-91 is equal to the total of the previous year's grants increased by the percentage increase in total university system operating grants (4.7%). Consistent with the recommendations of Advisory Memorandum 89-III, the $22.4 million is to be allocated according to the incidence of incremental bilingualism costs as identified in Advisory Memorandum 89-III.

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[3] The percentage increases in total basic operating grants in 1988-89, 1989-90 and 1990-91 are 4.5%, 4.0% and 4.7%, respectively.

[4] Ontario Council on University Affairs, Advisory Memorandum 89-VI, Government Support of the University System in 1990-91, p.35.

Accordingly, Council *recommends to the Minister:*

OCUA 90-9
BILINGUALISM GRANTS 1990-91

THAT bilingualism grants in 1990-91 be made in the following amounts:

Ottawa	$14,772,000
Laurentian	3,822,000
Glendon	1,919,000

1.1.4 Extraordinary Funding Grants

In Advisory Memorandum 88-VIII, Council recommended that Algoma College receive an extraordinary funding grant to help address the current "structural deficit" of the College. The conditions for the provision and continuation of this grant are outlined in Advisory Memorandum 88-VII:

> First, the College must accept the mission outlined in this memorandum. Second, the academic program plans outlined above must be followed. The course consolidation must proceed immediately. All new program offerings must be approved by the Minister on the recommendation of Council and must not require additional extraordinary funding. New peripheral course offerings must be undertaken only on a cost-recovery basis. Third, the College must develop a plan for the reduction of the accumulated operating deficit to achieve its elimination by 1992-93. This plan must include, at a minimum, a balanced current-year operating budget in 1989-90. Fourth, the College must continue its affiliation with Laurentian University. Fifth, the College finances are to be supervised by Laurentian University until such time as the College's accumulated operating deficit is eliminated.[5]

For 1989-90, Council recommended in Advisory Memorandum 89-III that an extraordinary grant of $760,000 be provided to Algoma College. A cost study is currently under way which will establish the level of the grant for 1990-91. Until which time a satisfactory deficit reduction plan is in place, Council will not supply advice on the level of this grant. A portion of the general contingency fund established for 1990-91 will be set aside to fund the extraordinary grant for Algoma College.

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[5] Ontario Council on University Affairs, Advisory Memorandum 88-VIII, 'Mission, Programs and Funding for Algoma College', pp. 125-126.

1.2 Program Adjustments Envelope

In Advisory Memorandum 88-VII, Council provided advice on the allocation of the program adjustments envelope for projects beginning in 1988-89.[6] The carry-forward commitments for the projects funded were significant for 1989-90, accounting for $6.871 million of the available $7.0 million made available annually under that envelope. For this reason, it was decided that no new program adjustments projects should be initiated in 1989-90. The corresponding carry-forward commitment from these projects for 1990-91, also identified in Advisory Memorandum 88-VII, totalled $3.337 million.

Beyond those pre-commitments from the 1988-89 competition, further program adjustments funds have not yet been approved for 1990-91. Council, having recently received Government's priorities for the next program adjustments competition, will be initiating a two-year competition for program adjustment projects beginning in 1990-91 and 1991-92, at which time the remaining $3.663 million available for 1990-91 will be committed in accordance with the results of that competition.[7] Recommendations on the total $7 million available for 1990-91 will be provided upon completion of the 1990-91/1991-92 program adjustments competition later this year.

1.3 Research Overheads/Infrastructure Funding Envelope

In Advisory Memorandum 87-XV, Council reviewed the mechanism used to allocate the research overhead/infrastructure funding envelope. It recommended that the envelope be allocated on the basis of each institution's proportionate share of total peer-adjudicated research funding awarded to Ontario universities by the Medical Research Council, the Natural Sciences and Engineering Research Council and the Social Sciences and Humanities Research Council, calculated annually using a three-year moving-average.

For 1990-91, the total funds available for distribution ($28.447 million) are equal to the total of the previous year's grants increased by the percentage increase in total university system basic operating grants (4.7%). These grants are allocated according to each institution's share of federal granting councils' peer-adjudicated research grants for 1986-87, 1987-88 and 1988-89.

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[6] Ontario Council on University Affairs, Advisory Memorandum 88-VII, Fifteenth Annual Report.

[7] Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H.V. Nelles, March, 1990.

Accordingly, Council *recommends to the Minister:*

OCUA 90-10
RESEARCH OVERHEADS/INFRASTRUCTURE FUNDING GRANTS 1990-91

THAT research overheads/infra- structure funding grants be made available according to the amounts indicated in Table 2.

2.0 Other Operating Grants

2.1 International Graduate Student Differential Fee Waivers

Council outlined its advice on procedures for allocating Government's contribution to international graduate student differential fee waivers in Advisory Memorandum 88-V. This advice confirmed the existing practice where waivers were allocated among Ontario universities according to each institution's slip-year three-year average of full-time graduate student enrolment, subject to a minimum of not less than three waivers for any institution with graduate enrolment as well as the funding distribution arrangements for Government's contribution.

For 1990-91, Council recommends that the 1,000 international graduate student differential fee waivers made available by Government through this program be funded at a rate of $5,689 per waiver, a 4.7% increase over 1989-90. It also recommends that these grants be allocated according to the procedures outlined in Advisory Memorandum 88-V.

Accordingly, Council *recommends to the Minister:*

OCUA 90-11
INTERNATIONAL GRADUATE STUDENT DIFFERENTIAL FEE WAIVER SUPPORT 1990-91

THAT international graduate student differential fee waiver grants be made available according to the amounts indicated in Table 2.

2.2 Enhanced Access for Disabled Students

On April 20, 1988 the Minister of Colleges and Universities requested "Council's early advice on programs to promote access for the under-represented groups", and announced that $4.0 million from the Accessibility Envelope would be set aside for that purpose.[8] In Advisory Memorandum 88-IX, Council stated that the million should be made available to enhance access for disabled students. In that memorandum Council recommended that the allocation be annual and ongoing, based on each institution's share of Base BIUs with a minimum floor of $30,000 allocated to each institution.

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[8] Letter from the Honourable Lyn McLeod, Minister of Colleges and Universities, to Dr. P. Fox, April 20, 1988.

For 1990-91, Council recommends that the level of the fund be increased by 4.7%, the percentage increase in base operating grants, and that the grants be allocated according to the methodology identified in Advisory Memorandum 88-IX.

Accordingly, Council *recommends to the Minister:*

OCUA 90-12
ALLOCATION OF FUNDING FOR DISABLED STUDENTS 1990-91

THAT these funds be made available according to the methodology outlined in Advisory Memorandum 88-IX resulting in the allocation indicated in Table 2.

3.0 Transitional Funding to Support Upward Corridor Shifts

In her letter of June 15, 1989 concerning the modification of the operating grants formula, the Minister stated:

> During the transition period, institutions that wish to maintain intakes at the recent higher levels on a permanent basis, and move to new base enrolment levels, will receive funds from the existing accessibility envelope and the newly committed funds, transferred to their basic grant allocations in accordance with the council's recommendations.[9]

For 1990-91, a total of $135.4 million has been made available to fund upward corridor shifts and the flow-through of accessibility enrolment. This amount includes the $65.5 million committed under the Accessibility Envelope for 1990-91 and the $69.9 million made available through incremental operating grants and the phase-out of the Accessibility Envelope. In this memorandum, Council makes recommendations on the allocation of these funds for 1990-91.

3.1 Accessibility Envelope

Included in the total operating support for 1990-91 is $84 million previously committed through the Accessibility Envelope. The level of grants provided through this fund have not been increased above the 1989-90 level.

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[9] Letter from the Honourable Lyn McLeod, Minister of Colleges and Universities, to Dr. H.V. Nelles, June 15, 1989.

In Advisory Memorandum 89-II, Council recommended that:

> ...the $84 million Accessibility Envelope be phased-out over three years and the funds be combined with the flow-through commitment to fund upward corridor shifts.[10]

In that memorandum Council stated that:

> Accessibility Envelope funding will be phased-out for all institutions in the following manner: year 1 - 100%; year 2 - 85%; year 3 - 70%; year 4 - 40% and year 5 - 0%. This simple transition is complicated by the fact that there are two years of accessibility increases and that Government has committed to full funding for 1989-90 for both years.

For 1990-91, $18.5 million will be phased out of the Accessibility Envelope, leaving a total of $65.5 million available for distribution. The $65.5 million available through the Accessibility Envelope in 1990-91 was calculated as 70% of 1987-88 Accessibility Envelope BIUs and 85% of 1988-89 Accessibility Envelope BIUs. Following the Minister's commitment to fund the first year of the Accessibility Envelope at a rate of Base BOI/Base BIU, 1987-88 Accessibility Envelope BIUs are funded at a rate of $4,960.695. The resulting rate of BOI funding per BIU for the 1988-89 Accessibility Envelope BIUs declined to $3,809.905.

Accordingly, Council *recommends to the Minister:*

OCUA 90-13
ACCESSIBILITY ENVELOPE FUNDING FOR 1990-91

THAT $65.5 million in accessibility funding be made available in 1990-91 according to the allocation indicated in Table 2.

3.2 Incremental Corridor Shift Funding and Phase-Out of Accessibility Envelope

The Minister indicated on June 15, 1989 that $46.7 million would be committed in transitional corridor shift funding for 1990-91.[11] On November 29, 1989 the Minister announced that a further $4.7 million in ongoing base funding would be available to fund corridor shifts in 1990-91, bringing incremental corridor shift operating grants for that year to $51.4 million.[12]

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[10] Ontario Council on University Affairs, Advisory Memorandum 89-II, p. 1.

[11] Letter from the Honourable Lyn McLeod, Minister of Colleges and Universities, to Dr. H.V. Nelles, June 15, 1989.

As indicated in Section 3.1, $18.5 million of the Accessibility Envelope will be phased out in 1990-91. Consistent with Council's advice in Advisory Memorandum 89-II, the $18.5 million of freed-up funds will be combined with the $51.4 million of corridor shift funding for a total of $69.9 million in transitional funding to support upward corridor shifts in 1990-91.

The $69.9 million available as transition funds will be allocated according to growth in new "growing" Moving-Average BIUs of each institution receiving a corridor shift (ie. the difference between the new Moving-Average BIUs and current Base BIUs) at a maximum rate of average Base BOI per Base BIU. For the 1990-91 funding year, the growing Moving-Average comprises one year, 1989-90. In order to ensure that enrolment growth is not double-counted through the Accessibility Envelope and the Formula Grants Envelope, Moving-Average BIUs above the current Base BIUs will be funded to a level of Moving-Average BIUs less the Accessibility Envelope BIUs still funded. In instances where the Moving-Average exceeds an institution's new corridor level, it will be funded according to the new corridor mid-point less Accessibility Envelope BIUs, rather than the incremental Moving-Average BIUs.

It has been noted by Council that because of the funding and phase-out provisions of the Accessibility Envelope, institutions could be faced with a situation where institutional BIU enrolment will increase beyond current levels, but the institution will suffer a loss in incremental funding. This situation is a function of the relative level of BIU enrolment in 1986-87 compared with Base BIUs and the rate of growth of institutional BIUs. Council has introduced a floor provision to avoid such temporary losses by institutions arising from these transitional funding arrangements. Institutions qualifying for this floor provision will maintain their 1989-90 level of Accessibility Envelope Grants. In order to qualify for a floor provision, it must be the case that an institution's enrolment is growing sufficiently annually to accommodate the BIUs moved out of the Accessibility Envelope, which were previously funded below the base. Specifically, the incremental Moving-Average BIUs above the Base plus the remaining funded Accessibility Envelope BIUs which are below an institution's current Base are equal to or greater than their total Accessibility Envelope BIUs. In those cases where an institution's new corridor mid-point is less than its Moving-Average, to receive the protection of the floor provision their new corridor mid-point BIUs plus the remaining funded Accessibility Envelope BIUs below their current Base BIUs must be equal to or greater than their total Accessibility Envelope BIUs. Two institutions, Algoma and Ryerson, received the floor provision. Other institutions' Moving-Averages were funded at a BOI rate of $4,707.32 BIUs.

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[12] Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H.V. Nelles, November 29, 1989.

Table 1

Availability of Funds for Distribution as Formula Grants for 1990-91

1. Total Operating Grants Available			$ 1,804,800,000
Deduct:			
2. Line-Item Grants		14,300,000	
3. Faculty Renewal Grants		25,048,000	
Sub-Total		39,348,000	
Available for Council's Allocation			1,765,452,000
4. Extra-Formula Grants			
a) Mission-Related Institution-Specific Funding			
Differentiation Grants	1,665,000		
Northern Ontario Grants			
- Operations	7,800,000		
- Mission	3,000,000		
Bilingualism Grants	22,400,000		
Sub-Total		34,865,000	
b) Program Adjustments Grants		7,000,000	
c) Research Overheads/Infrastructure Grants		28,447,000	
5. Other Operating Grants			
a) International Graduate Student Differential Fee Waivers		5,689,000	
b) Accessibility for Disabled		4,188,000	
6. Transitional Funding to New Corridor			
a) Accessibility Envelope		65,522,000	
b) Accessibility Phase-Out	18,478,000		
c) Corridor Shift Funding	51,400,000		
		69,878,000	
7. Contingency Provision		1,000,000	
Sub-Total		255,937,000	
8. Available for distribution as Formula Grants			$ 1,548,863,000

Accordingly, Council *recommends to the Minister:*

OCUA 90-14
CORRIDOR SHIFT FUNDING AND PHASE-OUT OF ACCESSIBILITY ENVELOPE FOR 1990-91

THAT $69.9 million in transitional funding be made available in 1990-91 to support upward corridor shifts according to the distributions recommended in Advisory Memorandum 90-I, resulting in the initial allocation indicated in Table 2.

4.0 Formula Grants Envelope

Of the $1,804.8 million in operating grants available for 1990-91, $255.937 million has been previously targeted for particular purposes by Government or recommended above by Council to be made available for extra-formula grants. Included in these deductions shown in Table 1 is $1.0 million which has been set aside by Council as a contingency provision in case any retroactive BIU adjustments are required at particular institutions and to address the extraordinary grant for Algoma College.

The remaining $1,548.863 million is to be allocated according to the operating grants formula recommended in Advisory Memorandum 86-VII.[13] It should be noted that the unused portion of the contingency provision will also be distributed according to this allocation formula.

The results of the formula calculation are found under the Formula Grants column of Table 2. Subject to any necessary changes in an individual institution's BIU and formula fee count, and visa student fee redistribution, Council recommends that the formula operating grants be distributed according to the schedule found in Table 2.[14].

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[13] See Ontario Council on University Affairs, Advisory Memorandum 86-VII, pp. 13-27, for a description of the formula.

[14] The University of Toronto, in its Round 3 Corridor Negotiation submission to Council, reduced their current undergraduate science Base BIUs by 380 to reflect mandated enrolment reductions in Medical interns and residents. None of the other universities with medical programs made such an adjustment. Council used the revised Base BIUs in its corridor negotiation calculations. However, this revised Base was not used in the allocation of formula grants in this memorandum. Should the Minister decide to address mandated enrolment in the manner indicated in Advisory Memorandum 90-I, then adjustments would be required to the University of Toronto and other universities with medical schools.

Accordingly, Council *recommends to the Minister:*

OCUA 90-15
FORMULA GRANT ALLOCATION FOR 1990-91

THAT $1,548.863 million in formula grants be made available in 1990-91 to the provincially-assisted universities and their affiliated colleges, Ryerson Polytechnical Institute, the Ontario Institute for Studies in Education, the Ontario College of Art, and Dominican College according to the operating grants formula outlined in Advisory Memorandum 86-VII resulting in the initial allocation indicated in Table 2.

Table 2 summarizes the distribution of grants based on the recommendations contained in this Memorandum. It documents, by institution, the formula and extra-formula grants recommended by Council for 1990-91, along with the recommended grant totals for 1989-90 and the percentage increases in grants between the two years.

Dr. H.V. Nelles,
Chairman

April 20, 1990

TABLE 2
DISTRIBUTION OF GRANTS GENERATED BY RECOMMENDATIONS IN ADVISORY MEMORANDUM 90-II
($000)

INSTITUTION	1990-91 RECOMMENDATIONS												TOTAL GRANTS RECOMMENDED FOR 1989-90	% CHANGE
		EXTRA-FORMULA GRANTS					OTHER OPERATING GRANTS			TRANSITION FUNDING TO NEW CORRIDORS				
		MISSION-RELATED INSTITUTION-SPECIFIC												
	FORMULA GRANTS	NORTHERN OPERATIONS GRANTS	NORTHERN MISSION GRANTS	BILINGUALISM GRANTS	DIFFEREN-TIATION GRANTS	RESEARCH OVERHEADS INFRA-STRUCTURE GRANTS	GRANTS TO BE RECOMMENDED AND CONTINGENCY PROVISION	INTERNATIONAL GRADUATE STUDENT DIFFERENTIAL FEE WAIVERS	DISABLED ACCESS GRANT	ACCESSIBILITY ENVELOPE	PHASE-OUT OF ACCESSIBILITY FUND AND CORRIDOR SHIFT FUNDING	TOTAL GRANTS RECOMMENDED		
BROCK	32,468					170		23	95	2,819	4,567	40,140	35,006	14.7
CARLETON	78,422					1,039		363	203	3,988	9,904	91,909	79,769	15.2
GUELPH	92,881					1,943		330	237	2,191	1,120	98,702	93,738	5.3
LAKEHEAD	25,282	3,303	1,270			154		40	71	1,381		31,511	30,565	3.1
LAURENTIAN	23,825	3,185	1,225	4,027		66		23	76	2,319	4,216	38,962	34,021	14.5
ALGOMA	1,736	252	97						30	163	58	2,337	2,248	4.0
LAURENTIAN(ALGOMA)	578	76	29								186	869	652	33.3
NIPISSING	4,376	613	236						30	764	822	6,841	6,101	12.5
LAURENTIAN(NIPISSING)	1,161	157	61									1,399	1,335	4.8
HEARST	423	128	49	147					30	53	73	903	815	10.8
LAURENTIAN(HEARST)	387	86	33							16		522	485	7.6
MCMASTER	100,622					3,386		386	258	3,526	3,053	111,220	104,349	6.6
OTTAWA	115,979			16,307		1,844		478	301	6,359	6,864	148,152	136,883	8.2
QUEENS	105,535					2,279		518	272	5,121	7,343	121,088	110,082	10.0
TORONTO	335,530					10,080		1,507	548	12,099	5,653	365,715	347,287	5.3
TRENT	17,079				1,685	110		17	50	961	2,690	22,572	19,311	16.9
WATERLOO	118,486					2,630		421	314	2,554	963	125,378	119,649	4.8
WESTERN	157,925					3,220		567	412	4,483		166,597	160,571	3.8
WILFRID LAURIER	31,302					80		108	90	2,401	2,371	36,352	33,317	9.1
WINDSOR	64,508					462		170	162	2,428	1,891	69,419	65,485	6.0
YORK	146,380			1,919		886		518	426	9,171	16,636	175,946	155,411	13.2
OISE	20,080					106		222	48	606	962	22,646	20,783	9.0
RYERSON	65,443								179	2,082	665	68,349	65,452	4.4
OCA	9,687								30			9,717	9,297	4.5
DOMINICAN	142	-	-	-	-	-	——	8	20	27	-	208	209	(0.5)
TOTAL	1,548,863	7,800	3,000	22,400	1,685	28,447	0	5,699	4,188	65,522	69,878	1,757,452	1,632,818	7.6
CONTINGENCY							1,000							
PROGRAM ADJUSTMENTS GRANTS							7,000							

NOTES: 1. Dominican College receives [illegible] funding. The [illegible] affiliates receiving [illegible] funding are included with the parent institutions. Adjustments are required to account for the change in status of St. Augustine's College.

2. Bilingualism grants for affiliated institutions are included with the parent institutions.

3. "The Total Grants Recommended for 1989-90" column has been adjusted to enable comparison with recommendations for 1990-91. To do this, Employer Health Levy funds, Program Adjustment funds, Faculty Renewal and the extraordinary grant for Algoma College have been deducted from Ministry data on total operating grants for 1989-90. 1989-90 grants for Laurentian's affiliates were based on AM 89-II.

4. It should be noted that while total grants available for Council's allocation are increased by 7.6% over the previous year, formula grants are increased by 4.7%. Base BOI is increased by 5.3%.

May 5, 1990

90-III

Eligibility and Accountability Arrangements for the Further Allocation for Universities Provided in the 1990 Budget

1.0 Introduction

On April 24, 1990, the Treasurer announced in the provincial budget an additional allocation of $18 million to the universities for 1990-91. The Minister of Colleges and Universities subsequently indicated that this further allocation was intended to "help provide for modern equipment and library materials and to enhance the quality of education." The Minister's letter also indicated that "although this money will be added to base, it will be targeted to improve the quality of university education." The Minister then sought Council's advice on appropriate institutional reporting requirements and eligible expenditures.[1] In this memorandum, Council offers advice on two aspects of this $18 million additional grant: eligible expenditure criteria and the accountability mechanism.

2.0 Eligible Expenditure Criteria

Council took the opportunity occasioned by the annual Spring hearings to consult with the Council of Universities (COU) and several institutions. COU and several of the institutions welcomed the additional grant and the proposed targets for the first year. During these consultations Council was advised against dividing the funds into separate expenditure categories and also urged to broaden the eligible expenditure categories as much as possible to address various institutional needs. COU and the institutions emphasized the need for flexibility in the criteria for those expenditures to be considered eligible under the additional grant noting that each institution has already made its own combination of choices to contend with financial stringency.

The tight financial situation confronting the institutions in fiscal 1990-91 has been compounded by the imposition of the payroll tax and the on-going implementation of pay equity. It was proposed that Council should provide a broad list of expenditures to the Minister and recommend relatively simple accountability to ensure that the money flows promptly to its intended purpose. Council therefore believes that, given the nature and size of the grant and the difficult financial situation confronting the institutions in fiscal 1990-91 that the use of broad definitions of eligible expenditures will maximize the impact that this further allocation will have on the quality of university education. This accords well with the Minister's wishes that Council's approach not be unduly restrictive.

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[1] Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H. V. Nelles, Chairman, April 24, 1990.

The Minister's letter indicated that this further allocation for 1990-91 could be used to improve library service. It was also suggested that indirect expenditures, such as installation costs associated with equipment and library purchases, should be eligible. Thirdly, it was also proposed that this fund might also be used to reduce class sizes in the introductory courses and to provide for more teaching assistants.

An erosion in the quality of university education has occurred in a myriad of ways over the last several years. Accordingly Council believes that the list of eligible expenditures should be expanded. Where institutions submit expenditures related to the reduction in class size in the introductory courses and to provide for more teaching assistants, institutions should also indicate the number of faculty and teaching and laboratory assistants hired to reduce class size. Council therefore recommends that expenditures on the following items should be considered eligible for funding under this grant:

- library services and materials;

- instructional equipment for language and scientific laboratories and other teaching and learning equipment such as computers and audio-visual equipment;

- equipment installation costs related to instructional equipment for language and scientific laboratories and other teaching and learning equipment such as computers and audio-visual equipment;

- teaching assistant and laboratory assistant costs in introductory courses; and,

- faculty salary expenditures associated with the reduction of class size in introductory courses.

3.0 Accountability Mechanisms

Council believes that for accountability purposes that only "post-audit" evaluations be required. Council believes that an appropriate determination that the funds have been used properly be restricted to evidence that the institution's 1990-91 operating expenditures on the above listed eligible items are equal to or exceed their allocation. Institutions should be required to provide the Ministry with a list of their fiscal 1990-91 operating expenditures on the eligible expenditure categories. Institutions that can demonstrate that their operating expenditures on these eligible expenditure items are equal to or exceed their allocation[2] should be considered to have complied with the accountability provisions.

Accordingly, Council *recommends to the Minister:*

OCUA 90-16
ELIGIBLE EXPENDITURES AND ACCOUNTABILITY MECHANISM FOR THE $18 MILLION ADDITIONAL GRANT FOR 1990-91

THAT in accordance with the considerations outlined in this memorandum, that the eligible expenditure items and the accountability mechanism be implemented for 1990-91.

Dr. H. V. Nelles,
Chairman

May 23, 1990

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[2] The Minister, in his letter to Council, indicated that the method of allocation for this additional $18 million will be based upon each institution's 1989-90 enrolment as measured by its Basic Income Units (weighted enrolment).

90-IV Government Support of the University System in 1991-92

Summary

As human resources rapidly replace natural resources as the origin of the wealth of nations, education and training become the most important investments in lasting social security a people can make. In a competitive, knowledge-based global economy universities are not luxuries and research is not a hobby. A skilled, well-educated, adaptable population is a prerequisite to prosperity. Increasingly, the modern university is becoming both the training ground of such a labour force and the source of its tools.

It is to our universities that society increasingly turns for ideas and solutions to address pressing social concerns, be they economic or environmental, medical or ethical. One cannot provide excellent health care delivery and adequate environmental protection without good university-based research. As the well-being of the Province continues to depend upon a quality health care system, the health care sector, in turn, will continue to rely on Ontario's universities for a supply of highly-qualified, competent doctors and nurses and for valuable health care research which remains at the forefront of emerging technologies. Universities are rooted in the concerns of their societies. Whatever the problem, society expects the solutions to come either directly or indirectly from the universities. One thinks naturally of the importance of science and engineering education and research as sources of innovation. Similarly the social sciences and humanities have much to contribute to our ability to respond constructively to challenges and opportunities. Technological change and socio-cultural change go hand in hand, and the ideas that animate both more often than not emanate from our universities. It is in the universities alone that scholars have the independence and the resources to address fundamental or basic research problems upon which new generations of science and technology will be founded.

Universities are vital institutions and they are no longer the exclusive preserve of a vital few. Universities have become institutions of mass education in the modern era. Indeed, levels of student participation demonstrated in universities in Ontario and the United States represent targets towards which other advanced countries are aiming in the year 2000. Ontario can be justly proud of the efficiency and accessibility of its universities which, in those respects, set international standards. More and more career paths lead through the doors of a university, on into post-graduate training, and very frequently back to the university in mid-career for further study. Life and learning are becoming bound up together in a longer continuum as we must increasingly make our living in the world with ideas which must intersect with global needs.

In recent years other issues have crowded universities off the public agenda. There is a natural tendency in a democracy to address pressing problems at the expense of future well-being. To prevent that from happening, the universities of the Province must seek more effective means of communicating their important social, economic and cultural role to the public. It is simply improvident to diminish the capability of our universities as centres of advanced training and research when throughout the post-industrial world, our competitors are redoubling their efforts in the area of higher education. It would be unreasonable to expect that Government could provide Ontario's universities with the resources which the undeniably great universities have -- although more might be done to help universities aspire to higher levels of service through both governmental and non-governmental sources of funding. Even the capabilities of outstanding state systems such as California, Texas and New York may exceed our more constrained fiscal grasp. We can reasonably expect, however, that Ontario universities should have sufficient resources to provide instructional leadership and research in a Canadian context. Let us then ask rather what is the best we can do under the circumstances to ensure that the university foundations in Ontario are firm enough upon which to rest our moderately ambitious hopes.

Council believes that it is not sufficient merely to advise Government as it has in the past on how much it would cost to maintain a declining level of service. Rather, it should identify costs associated with its idea of what the universities of Ontario should be providing in the way of quality of service to support our economic and cultural aspirations. This year Council therefore advises Government not only on the costs of maintaining levels of service, but also on the requisite investment to support the restoration of a quality university system -- a system commensurate with the comparative wealth of this society and expectations society has of its universities.

In this memorandum, Council provides Government with advice on recommended levels of Government support for the Ontario university system for 1991-92. The advice consists of recommendations on both base and targetted funding. For 1991-92, Council recommends that:

i) $129 million be provided through the establishment of three initiatives to ensure that Ontario's universities are equipped to embrace growing opportunities and make important contributions through excellence in education and the preparation of teachers for the broader educational sector:

- $105.8 million[1] in support of an *Educational Renewal Program* which will: increase student/faculty interaction; improve the instructional skills of faculty; increase the reliance on small group work; increase requirements for written work; provide for enrichments to instructional equipment and library resources; enhance student support services and support curricular enrichments.

- $3.9 million in support of an *Enhanced Space Utilization* fund to alleviate overcrowding in classrooms, laboratory, and study space; adapt classrooms for the use of computer technologies and new teaching formats; and provide office space for additional faculty and support staff.

- $19.3 million in support of a *Program to Renew Ontario's Educators* for schools, colleges of applied arts and technology and universities through the provision of targetted bursaries and operating funding enrichments;

ii) $15.0 million be added to the Research Overheads/Infrastructure Envelope to supplement the current level of research overhead funding;

iii) $1,819.0 million in Government grants be provided in base operating support;

iv) $44.3 million be provided for major repairs, renovations, alterations and replacement projects to support the cyclical renewal of the existing capital stock and $35.8 million be provided in respect of the deferred maintenance of physical plant; and that

v) $2.0 million be provided in recognition of the documented shortfall in funds to support the incremental costs of bilingualism programs.

1.0 Government Support

Council would like to recognize Government's efforts in responding with funds to deal with recent enrolment growth in the system. The Minister's acceptance of the advice contained in the Advisory Memorandum 90-I Revisions to Universities Formula Grants Envelope Corridor Mid-Points as a Result of the 1989-90 Corridor Negotiations[2] has provided the basis for the permanent accommodation of recent enrolment growth in the transition to new corridor mid-points over the next several years. Council applauds Government's recent initiative to address the quality of university education through the further allocation of $18 million. However, Council notes that given the size and nature of the additional allocation for 1990-91, the impact upon the quality of university education is not expected to be significant. **A reversal of the many years of quality deterioration in university education requires a major new injection of funds into the system**. Furthermore, as the institutions move rapidly towards their new corridor mid-points, the quality of university education will be further compromised unless major initiatives are launched to address substandard quality.

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[1] $105.8 million represents the total cost of the Educational Renewal Program. If, however, a cost-sharing arrangement were introduced whereby the Program was also supported by increased fee revenue, Government contributions would be decreased accordingly.

[2] Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H. V. Nelles, Chairman, May 18, 1990.

Government's acceptance of the thrust of Council's recommendations provided in Advisory Memorandum 90-I confirms Government's commitment to accessibility. Council acknowledges that while incremental growth in the system related to accessibility has been addressed, the need for quality base funding remains. The base upon which recent enrolment growth is built has been squeezed. In Advisory Memorandum 89-II Modification of the Operating Grants Formula it was emphasized that important funding issues beyond growth and accessibility required urgent attention. Council noted:

> It must be understood that this (formula revision) does not address the larger issue of restoring adequate base funding to address the long-term needs of Ontario's universities, but is an essential part of the regularization of university funding to allow universities to plan for the 1990s.[3]

Adequate base funding has been further undermined by the lack of Government acceptance of two key recommendations in Advisory Memorandum 90-I. In that memorandum, Council recommended strongly that the value of the BIU for corridor shift BIUs be maintained at 100% of the Base BIU value. The discounted BIU value attached to the transition BIUs will penalize the institutions in their shift to their new corridor mid-point and further aggravate the existing inadequate base funding. In 1990-91, the operating grants available for corridor shifts were not increased for inflation resulting in a BIU value that fell short of Council's intended benchmark value, the average Base BIU value. To correct this shortfall Council recommended in 90-1 that:

> to accommodate the shortfall in the BIU value created by the current funding situation, Council recommends that over the six-year period of corridor shifts, sufficient funds be provided so that the BIU levels

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[3] Ontario Council on University Affairs, Advisory Memorandum 89-II, Modification of the Operating Grants Formula, p. 15.

> identified in Table 4 (Advisory Memorandum 90-I) be funded at the average Base BIU value in the previous year escalated by the current year increase in formula fee rates (for the formula fee portion of the BIU value). Under this "slip-year" approach the full BIU value will be realized one year after all new corridors have been reached.[4]

Government accepted this in principle with its acceptance of [illegible] Memorandum 89-II. Council urges Government to act on this recommendat[illegible]at it has already accepted.

In Advisory Memorandum 90-I, Council also recommended the acceleration of corridor shift funding. The extent to which the system has already achieved a large proportion of the collective new corridor mid-point is indicated through a comparison of 1989-90 enrolments to the new corridor mid-point awarded in Corridor Negotiations. By 1989-90 the system had already accommodated nearly 82 percent of the 45,600 incremental BIUs available in the transition to new corridors. With five more fiscal years in the transition period this means that there is the significant potential for institutions to reach their new corridor mid-point very early in the transition period. Despite an early achievement of new mid-points, these institutions will have to wait for those additional transition funds even though they will have reached the necessary BIU count associated with their new mid-point. Advisory Memorandum 90-I proposed to accelerate the flow of transition funding through recommendation 90-2. This recommendation which has not yet been acted upon, bears repeating: "the scheduled flow of incremental operating grants made available for corridor shifts outlined in Table 3 be accelerated to reflect recent intake increases and the consequent flow-through enrolments."[5]

For 1990-91, Government increased total university operating support to Ontario universities by 8.0%[6] over the total allocation for 1989-90 (when the additional $18 million is included, the increase is 8.8%). These provisions include an increase in formula and extra-formula operating grants of approximately 4.7% over the previous year - an increase which falls substantially short of the increase in base operating grants recommended by Council. The remaining 4.1% represents supplementary funding enhancements for 1990-91, to be provided through targetted funds, the phase-out of the Accessibility Envelope and transition to new corridor mid-points.

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4. Ontario Council on University Affairs, Advisory Memorandum 90-I, Revisions to Universities Formula Grants Envelope Corridor Mid-Points as a Result of the 1989-90 Corridor Negotiations, p. 18.

5. Ibid, pp. 19-20.

6. Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H. V. Nelles, November 29, 1989.

While acknowledging these provisions as important contributions to university funding, Council is concerned that the base operating support extended to the institutions continues to fall below the level required to meet Council's existing basic funding objectives for the university system. The cumulative gap between funding requirements and the level of Government support continues to widen. The gap continues to expand as constrained base operating grants must bear the costs of inflation, provincially-mandated programs such as pay equity and the employer health tax as well as the phase-in of higher unemployment insurance costs. These increases cannot be passed on to consumers. Without adequate base operating support, drastic budget cuts, deficits, across-the-board cuts, unit cuts and reconsideration of institutional mission are expected to be implemented as constrained operating resources are stretched further.

The achievement of Government's stated goals through the university sector requires substantial additional revenues to restore quality. A serious re-consideration of Government policy with respect to fees is warranted should base operating grants continue to require that institutions make significant compromises on the quality of university education. Last year, Council detailed the constituents' thoughts on tuition fees in a report entitled What the Council Heard About Fees. Council notes that the fee issue has since not been adequately addressed particularly since the annual increase in formula grants continues to fall short of inflation. Student support for better university funding has recently been demonstrated by referendum-endorsed higher ancillary fees and, in some cases, public declarations by student bodies of a willingness to pay higher fees for improvements in the quality of education. Council believes that students should share the responsibility of financing quality enhancements in universities and that the quality enrichments recommended in Section 2.1 should be supported both by Government funds and additional fee increases.

In last year's funding advice, Council drew attention to the disturbing evidence of the declining quality of instructional service being provided as a result of accessibility pressures throughout the system. During the 1990 Spring Hearings, the evidence continued to mount. It is simply not the case any longer that students in the system are receiving the same quality of university education as their predecessors received. Hands-on laboratory hours in some institutions have been cut; written work reduced to a minimum and in some courses eliminated; part-time instructors have replaced full-time professors in a growing percentage of classrooms. Council is deeply concerned, therefore, that maintaining last year's level of service is simply not good enough. Last year's levels fell below Council's conservative estimate of need. Indeed, the discount has been growing for more than a decade. Now is the time for desperately needed improvements.

There are two components of Council's funding advice for 1991-92: funds required to maintain levels of service; and funds required to restore the quality of university education. In Sections 2 and 3, Council sets forth new initiatives which identify the requisite resources to restore the quality of instruction and to supplement the current level of research infrastructure coverage in Ontario's universities. In Section 4.0, Council advises Government on the costs involved in simply maintaining existing levels of service. The relative priority afforded to the quality initiatives, implicit in this relative ordering for the components of the funding advice, reflects Council's position that qualitative enhancements to Ontario's university system require immediate attention if the level of service provided is to be restored to adequate levels.

2.0 Meeting the Challenge of the 1990s

With the approach of the 21st century, social and economic prosperity both for individuals and the broader economy and greater environmental responsibility are becoming increasingly dependent upon quality educational foundations. As skill requirements continue to rise, the important contribution of educational attainments in shaping labour market success emerges clearly in the growing spread in unemployment rates between workers with university education and those with less education. These trends carry significant implications for Ontario's university system which constitutes the primary vehicle for providing these requisite skills through advanced education.

As economic and social imperatives in the Province multiply and become more demanding, the mandate of the universities expands accordingly. The result is a university system which, having recently responded admirably to pressures of accessibility, must now demonstrate an ability to respond to the mounting complexity and demands for quality characteristic of today's labour market. While recent additions to university resources have assisted in accommodating increased enrolments, new funds will be required as the university system looks ahead to these demands for educational excellence in the 1990s and beyond. It has been remarked that in the past, nations competed through their military and industrial systems; in the future it is likely that the focus of international competitiveness will be on systems of education.

Council notes that for years university funding has had to compete with other sectors -- most notably health care and elementary and secondary education - for scarce public resources. And for years the trend in university funding, on a per client basis, has fallen short of funds provided in other sectors. Council urges the Government to recognize the linkages between the economic and social well-being of the Province and the contributions of Ontario's universities. Few advancements in the health care sector could be accomplished without the innovation and support of university graduates and researchers. Likewise, education from primary through to higher levels depends critically on the supply of well-trained instructors from Ontario's universities. Ontario's relative ranking of ninth out of ten provinces in Government support per student is clearly at odds with the important role of Ontario universities as the primary supplier of graduates for this Province and a significant supplier for the rest of Canada. The increasingly complex and costly operation of these institutions must be recognized accordingly in annual funding provisions. Council's recommendations contained within seek to promote educational excellence which will be reflected in Ontario's university graduates and tomorrow's labour force.

In this memorandum, Council identifies three components of the challenge confronting Ontario's universities. The first element, set forth in Section 2.1, is that of improving the ability of universities to equip their graduates with skills which will enable them to participate in an increasingly competitive world and make valuable contributions in all sectors of the provincial economy. Section 2.2 addresses a related issue concerning the improvement of space utilization in Ontario's universities to support the instructional enhancements detailed in Section 2.1. The third component of the challenge, presented in Section 2.3, is that of ensuring that a sufficient number of quality instructors are available to teach in Ontario's educational institutions. This challenge of educator renewal, heightened by impending large-scale retirements, extends to all levels of Ontario's educational system and carries particularly significant implications for universities which take the lead role in preparing teachers for both elementary and secondary schools and post-secondary institutions.

Assuming that these challenges can be met, the opportunities for universities to make a valuable contribution to socio-economic development of the Province are great. In this advice, Council urges that funding be provided to ensure that Ontario's universities are equipped to embrace growing opportunities and make important contributions through excellence in education and the preparation of teachers for the broader educational sector. This advice builds on the strategy advanced earlier in Advisory Memorandum 89-VI Government Support of the University System in 1990-91 in which Council emphasized the need to address educational quality in a meaningful way. The three separate initiatives recommended by Council to support quality restoration are outlined in the sections which follow.

2.1 Educational Renewal Program

2.1.1 The Challenge Confronting Ontario's Universities

In the recommendations contained within, Council sets forth a plan to address directly the quality of the educational experience and instruction at Ontario's universities. This plan is being advanced against a background of rising expectations for the university sector and the challenge of refurbishing universities such that they are capable of providing education concomitant with those expectations.

The complementarity of effective teaching and strong research as the underpinnings of a quality university system cannot be understated. With curriculum content ever changing and new specializations continually emerging as a reflection of contemporary issues and technological advancements, ongoing research becomes an imperative for effective university educators. The importance of timely and ongoing research on the part of university instructors is fundamental in ensuring excellence and relevance in the *content* of university education. With regard to the *manner* in which this content is conveyed to students, there are certain instructional principles which persist over time as the fundamental cornerstones of "educational excellence". Accepted as the overriding elements of effective teaching and learning are the following:

1. extensive contact between students and faculty;
2. the development of reciprocity and cooperation among students;
3. use of active learning techniques;
4. prompt delivery of feedback;
5. emphasis on time on task;
6. communication of high expectations; and
7. respect for diverse talents and ways of learning.[7]

It is against such principles that the proposals within have been developed.

The growing role of the universities and the flourishing opportunities to contribute in a meaningful way to social and economic development are clear. So too, are the educational parameters for Ontario's university system if it is to provide quality service at a level consistent with those growing demands. However, a glance at the province's "report card" suggests that there is significant progress to be made before institutions are sufficiently equipped to meet the demands being placed upon them. At a time when institutions should be revitalizing to take on the exciting challenges emerging and to assume a position of greater prominence in the Province, there are disappointing trends which suggest that quality has been compromised by the recent emphasis upon growth and accessibility. Moreover, as Council's 1990 Spring Hearings revealed, many institutions confront serious financial problems in providing even these reduced levels of service.

The 1989 Spring Hearings brought to light substantial information, subsequently summarized in two Council discussion papers, that the quality of the undergraduate learning environment had been steadily eroding in recent years.[8] Evidence was brought forward to suggest that interaction between students and faculty is being severely compromised. At the forefront of this concern is the rise in student/faculty ratios and the associated reduction in access to instructors. For 1988-89, the most recent year for which official data are available, student/faculty ratios registered 16.7:1.[9] This ratio marks a 19% increase over the 1977-78 ratio and a 29% rise in 1970-71 student/faculty ratios. While numbers of these magnitudes perhaps by themselves do not suggest cause for concern, the construction of the ratio effectively masks several alarming underlying trends which indeed signal that class sizes have grown beyond acceptable levels. A preponderance of such unfavourable trends, not immediately apparent from student/faculty ratios, are visible across the system. One institution reported average section sizes for 1988 in excess of 40 students for Arts and Science and noted that fully 15% of these lectures exceeded 80 students, with many in excess of 160 students. With regard to first-year classes, another institution reported average section sizes of 103 for 1988-89, noting that 50% of all first-year classes exceeded 80 students and that there has been a substantial increase in the number of entry-level classes exceeding 300 students. First year tutorials, where they survive, often contain more than 30 students.

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[7] Chickering, A.W. and Gamson, Z. with Astin, A.W., et. al., Principles of Good Practice in Undergraduate Education, unpublished paper.

[8] Ontario Council on University Affairs, What the Council Heard About Fees (1989), and What the Council Heard About Accessibility (1989).

In seeking to accommodate record levels of enrolments, institutions have had no choice but to rely on excessively large class sizes. As information is conveyed in large lecture formats, there is a fundamental sacrifice in the development of critical, analytical and communication skills amongst students. Council believes that while there are a number of instructional delivery techniques through which curriculum content can be effectively conveyed, it is only smaller class formats which support the free exchange of ideas, the cultivation of critical thinking, and hands-on experience with scientific methods. Also sacrificed as class sizes increase is the ability of instructors to detect and assist students with learning difficulties.

Class sizes of these proportions contrast sharply with the Government-supported reductions in elementary school class sizes. Under that initiative, grade 1 and 2 classes are to be confined to a maximum of 20 students for 1990-91. Such initiatives to restrict class sizes in those educational institutions signal a funding commitment to retain instructional quality -- a funding commitment which is noticeably absent in Ontario's university sector.

The deterioration of equipment, laboratories and library holdings was also cited as a major impediment to the learning process, as were reduced academic requirements and limited course offerings. Likewise, an over-reliance on teaching assistants, sessional or part-time instructors who are exempt from research requirements and contributions in areas of curriculum development, administration or committee work, was identified as a serious problem. One institution noted with respect to the Department of English, that while the number of full-time faculty remained roughly constant, the part-time complement nearly tripled to accommodate enrolment pressure in recent years. The extent to which institutions were capable of addressing these detrimental trends in instructional quality has necessarily been constrained by conflicting pressures to adopt innovative "productivity enhancements" in response to accessibility policy. Implications of these unfavourable trends in the quality of education may take many forms, ranging from reduced currency of degrees, unacceptable drop-out rates, alienation of students and alumni from the institutions, and evidence of employer dissatisfaction with the educational preparation of employees.

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[9] Council of Ontario Universities. Ratio measured according to COU methodology documented in Ontario Universities Statistical Compendium 1970-88, Part A: Macro-Indicators, COU, October, 1988, p. 25, wherein FTE faculty are obtained by dividing the 'sum of salaries and wages for academic ranks and other instruction and research under operating expenses' by the 'average salary on a fiscal year basis for academic staff in the professorial ranks for each institution'.

2.1.2 Responding to the Challenge

Council proposes a plan to support quality enhancements in Ontario's universities which addresses the following objectives:

- to provide Ontario university students with an educational experience more closely comparable with the highest international standards;

- to ensure thereby that the Province is equipped with the skills which are imperatives for the economic success and social well-being in an increasingly competitive environment as we enter the next millennium;

- to equip graduates with attributes which will be essential for survival in a rapidly changing environment, such as adaptability, flexibility, strong groundings in literacy and numeracy, and an aptitude for life-long learning; and

- to direct resources in such a way which permits careful monitoring of improvements.

Council proposes to address those aspects of the educational experience which are most closely linked to the quality of students graduating from Ontario universities. It is proposed that this be undertaken through the provision of earmarked funds which would be targetted to improving specific areas of service to university students.

Council has identified seven specific quality enhancement targets which it believes would effectively make the greatest contribution to instructional excellence in Ontario universities. These targets address two areas of great importance in fostering instructional excellence for students: the quality of instruction; and the quality of educational resources available for instruction. These initiatives, recommended through the establishment of an Educational Renewal Program, are discussed in turn in the sections which follow.

a) Quality of Instruction

i) Increased Student/Faculty Interaction

Opportunity for student/faculty contact, in and out of the classroom, is often cited as the single-most important factor in student motivation and involvement. Faculty who are actively engaged in developments in their discipline play important roles not only in assisting students with academic work, but also in providing guidance on future career plans and providing a stimulus for advanced study.

Improvements in student/faculty ratios in an environment of expanding enrolments clearly requires the addition of full-time faculty. In identifying an appropriate addition to faculty complements, Council has determined the number of additional faculty required to reduce student/faculty ratios from a ratio of 16.7:1 to a target ratio of 14:1. This ratio of 14:1 was the ratio upheld in 1977-78 -- a year when Council and Government were in agreement with regard to the funding requirements for Ontario universities. The ratio of 16.7:1 reflects the most recent data available from the Council of Ontario Universities (COU), and is based on full-time equivalent (FTE) enrolments of 235,895.7 and 14,151.6 in FTE faculty. Based on that level of FTE enrolment, an increase of 2,698 faculty is required to achieve a ratio of 14:1. With recruitments expected both at the assistant and associate professor level, an average faculty salary for these two ranks ($58,630) is applied, reflecting average 1989-90 salaries inflated by an estimated inflation rate of 5.8%. An additional 15% for benefits ($8,795) is then applied, bringing total per faculty costs to $67,425. Following this methodology, Council estimates that $181.9 million in additional resources are required to support a reasonable reduction in student/faculty ratios through the net new addition of additional full-time faculty, beyond replacements of retirees.

The extent to which faculty are capable of pursuing excellence in teaching and research activities is dependent in part upon strong infrastructural support provided by non-academic staff. Consistent with the methodology employed in The Commission on the Future Development of the Universities of Ontario, Council allows for additional academic support staff to be provided in the ratio of 0.8 per faculty member.[10] An additional 2,159 support staff are therefore required to support an additional 2,698 faculty which, when costed at an average support staff salary of $33,255 (the average 1989-90 non-academic salary, inflated by an estimated inflation rate of 5.8%) and an additional 15% for benefits ($4,988) involves an additional $82.6 million. While this enrichment to non-academic staff will provide the necessary support for new faculty, Council wishes to stress that it will not address the overall inadequate provision of academic support services characteristic of recent years. Representations made to Council on various occasions have underscored the serious erosion in the level of support staff complements which have failed to keep pace with growth in enrolments and university programming. The Confederation of Ontario University Staff Associations notes that while enrolment has increased "by 80% in many institutions in the 1980s support staff growth has been less than 5%[11]."

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[10] The Commission on the Future Development of the Universities of Ontario. Ontario Universities: Options and Futures, December 1984, p. 47.

Additions to academic and support staff ranks provided for through this initiative total to an estimated annual cost of $264.5 million. Council recommends that this amount be phased-in over a three-year period, beginning with a $88.2 million provision for 1991-92.

II) Improving the Instructional Skills of Faculty

Opportunities to develop the instructional skills of faculty play an essential role in assuring the quality of the educational experience. Council notes and supports many successful initiatives already underway in Ontario universities to address this integral component of instructional delivery. One such initiative is the Centre for the Support of Teaching at York University which provides opportunities for all instructional staff to enhance their teaching skills. The Centre provides assistance for teachers; assists in developing useful teaching techniques, course and curriculum evaluation; establishes a flow of information about teaching; and provides general and technological support of teaching activities. Similarly, at Queen's University, the Principal's Advisory Committee on Instructional Development is recommending that a carefully designed centre for instructional development be introduced which will assist faculty and teaching assistants to improve their teaching skills and assessment techniques.

Council believes that resources should be made available to institutions to support the development of faculty teaching skills which are appropriate for a modern pedagogical environment. Such training opportunities would provide vehicles for imparting constructive skills to instructors on appropriate feedback and assessment techniques; effective communication skills with students; and applications of alternative learning techniques. Council recommends that $2.5 million in funding be provided annually to support improvements in instructional skills. This initiative would provide for the training of 500 faculty at an average cost of $5,000 per faculty member. Council recommends that this amount be phased in over a three-year period, beginning with a provision of $0.8 million for 1991-92.

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[11] Confederation of Ontario University Staff Associations, Brief to the Ontario Council on University Affairs, April 20, 1990, p. 2.

iii) Increased Reliance on Small Group Work

The wide-spread adoption of larger class sizes is often associated with a negative qualitative difference in a student's educational experience. Whereas working in small groups increases individual involvement in the learning process, large lectures preclude this important exchange of ideas and personal interaction. It is important that seminars, tutorials or other small group settings be available, particularly in the early stages of a student's university career, as these formats afford maximum opportunity for valuable discourse and interaction between students and faculty. It is in such critical peer group settings that students also hone their communication skills upon which labour markets quite justifiably place a premium. Learning at its best is not simply a one-way street. Small group work is a fundamental issue not only in the arts but also the sciences, where the quality of the laboratory experience rests critically on the provision of adequate laboratory contact hours. The addition of full-time faculty, recommended in section i), would enable institutions to provide small group formats, thereby extending to students the many benefits gained through small group interaction.

iv) Increased Requirements for Written Work by Students

The effective development of analytical, reasoning and communication skills on a systematic basis requires the regular examination of written work. Requirements for substantial written work, such as essays, essay-type examinations, or written laboratory assignments, particularly in first and second-year courses, foster the development of strong foundation skills and breadth of educational experience characteristic of a high quality university education. By increasing faculty complements in the manner outlined in section i), universities would be able to restore the emphasis on assignments and written work which represent a cornerstone of the educational process.

b) Quality of Educational Resources

v) Enhanced Instructional Equipment and Library Resources

As in other sectors of the economy, technologies used in educational applications are costly and changing rapidly. However, unlike other sectors, limited public funds preclude universities from updating equipment, with even a reasonable lag, as new technologies emerge. In many laboratories and studios, equipment has been pushed to the limits of utilization. Equipment breakdowns are common, leaving students less time for their projects and experiments. Graduates who are trained on outdated, poor quality equipment lack the skills to compete in today's labour market and offer little to employers whose demands for sophisticated, relevant skills are continually increasing. Clearly efforts must be made, particularly for the capital-intensive disciplines of science and engineering, to develop extensive linkages with industry through cooperative programs which will provide students with the important hands-on exposure to current technologies. Such exposure is critical if programs are to retain relevancy in a rapidly changing environment. Where common equipment needs can be identified, institutions should also be encouraged to establish consortia through which to purchase costly equipment jointly with other institutions.

In addition to seeking linkages with industry and other institutions, Council believes that enriched funding is urgently required to support the acquisition of modern teaching devices for institutions, such as audio-visual and multimedia equipment and other technical resources, which will ensure a minimum level of relevancy and currency in the laboratory and classroom experience. With minimal resources to allocate, universities will also face the challenge of identifying affordable technologies most appropriate for student instruction. To ensure that limited equipment funds are expended efficiently, it is proposed that additional resources be made available to assist institutions in identifying instructional technologies most suited to imparting the core skills which lay at the foundation for rapid changes in the discipline. To address these needs, Council recommends that expenditures on instructional equipment in Ontario's universities be increased by 25%. The most recent data available from the Committee of Finance Officers - Universities of Ontario (COFO-UO) indicates that expenditures on equipment and furniture purchase, rental and maintenance for instruction and research totalled $37.3 million for 1988-89. In addition to annual cyclical renewal needs, Council therefore estimates that an additional 25% enrichment to this category, or $9.3 million, should be provided to make a measurable improvement in the quality of instructional equipment in Ontario universities. Council recommends that this amount be phased in over a period of three years, and that $3.1 million of this amount should be made available in 1991-92.

Quality library resources are equally essential both to the academic progress of students and the maintenance of faculty research capabilities. In many disciplines, the acquisition of periodicals and books has become prohibitively expensive. Between 1977-78 and 1987-88, book and periodical prices rose by 190%. Council notes, that despite a modest increase in 1986-87, the constant dollar value of library acquisitions per student fell by over 30% between 1977-78 and 1987-88. In addition, access to library resources has been further constrained by inadequate hours of operation. Council believes that the quality of library resources should be restored to achieve per student levels of expenditure last realized in 1977-78. An increase of roughly 40%, or $18.1 million, is therefore required to restore the value of library acquisitions to 1977-78 levels. To support these additional expenditures, Council also recommends an $8.6 million enrichment to library staff, estimated as 10% of the 1988-89 salary and benefits expenditures on library personnel. Council recommends that a total sum of $26.7 million be made available to restore per student library expenditures and library staffing to reasonable levels, and to ensure that students and faculty have access to high quality, current library materials. Council recommends that the amount of $26.7 million be phased in over a period of three years. For 1991-92, Council recommends that $8.9 million of that amount be made available through this initiative.

vi) Enriched Student Supports

Getting students, especially from non-traditional backgrounds, is just the beginning. Support systems offered by the university provide important safety nets for students who, for a diversity of reasons, may find prospects of success seriously at risk once on campus. Estimates of apparent drop-out rates at the undergraduate level signal that there is a significant percentage of students who fail to complete degrees.

Council believes that enriched student support systems would make an important contribution to the retention and academic achievement of students, and fulfil the needs of non-traditional cohorts enroling as mature, part-time, or disabled students or other minority groups. Initiatives geared at strengthening these important support networks would encourage retention, thereby improving the proportion of successful completions. Enhanced graduation rates, in turn, would signal that public funds were being utilized efficiently toward the successful cultivation of skills amongst graduates. Examples of student support activities which reduce barriers to successful completion include: counselling; information services; various forms of campus orientation; the provision of study skills; tutoring and academic remediation or preparatory courses. One example of a student support initiative undertaken to date is the Academic Skills Centre at Trent University which provides tutorials, discipline-specific workshops, writing-effectiveness workshops and a set of publications containing guidelines for the preparation of essays and the writing of examinations. Council supports the extension of such initiatives and recommends that an additional $3.4 million be provided annually to strengthen student support in Ontario universities. Council recommends that this amount be phased in over a period of three years beginning with a provision of $1.1 million for 1991-92. This represents a 10% increase in the estimated $34.1 million which is spent on academic and personal supports for students, calculated as roughly one-half the total expenditures reported as "student services" by COFO-UO for 1988-89.

vii) Curricular Enrichments

Council emphasizes the importance of providing a broad selection of elective and upper year division courses in the university curriculum, particularly with the many new fields of specialization emerging at the advanced level. Constrained resources have, however, often resulted in the curtailment of course offerings or restricted enrolments. This has meant that the range of electives open to students is minimized and the curriculum narrower than is academically desirable.

Enhanced resources are required if universities are to expand course options and provide a broad range of flexible programming which is a feature of quality institutions. Council recommends that an additional $11.2 million be provided annually, phased in over a period of three years, to enhance course offerings within existing university programs, particularly for upper-year students. Council estimates that $11.2 million is the amount required to support the introduction 500 additional course offerings. This estimate is based on an average faculty cost of $67,425 (average salary plus benefits as calculated in section i), and an assumption of 3 sections per FTE faculty member. Resources might be targetted toward the expansion of course offerings to meet the needs of students in part-time and evening programs and high demand university programs, and to establish stronger course linkages with Ontario's Colleges of Applied Arts and Technology. Council recommends that $3.7 million of this amount be provided for 1991-92.

c) Summary Recommendations under the Educational Renewal Program

The preceding initiatives reflect areas identified by Council as priority targets for resources if the Province is committed to restoring educational quality in Ontario universities to the level enjoyed several years ago. Costs associated with individual components of the Educational Renewal Program are summarized in Table 1. Council recognizes that priority target areas for quality enhancements will vary across institutions. It is therefore recommended that institutions retain the flexibility to allocate resources to those target areas noted within this memorandum which most closely respond to the particular needs of their respective institution. To address these initiatives, Council recommends that a minimum of $317.6 million in base operating support be made available annually through Government grants and through student fees, starting with a $105.8 million provision in 1991-92 as the Program is phased in over a three-year period. Council considers this to be the appropriate amount to address both the quality deterioration associated with accumulated funding shortfalls and accessibility pressures, and the mounting demands of society which will look to an invigorated and effective university system as the Province moves into the 1990s. Ontario's universities must also be kept competitive in an increasingly tight academic labour market. If Ontario's universities are to keep their own graduates at home and attract top flight talent from abroad, they will have to be able to provide working conditions and salaries comparable to those available in adjacent jurisdictions in North America. That means that workloads, class sizes, libraries, laboratories and amenities will increasingly play a determining role in career choices for mobile academics. Ontario's industries must remain competitive: so must its universities.

Table 1

Total Cost of the Educational Renewal Program
($ millions)

	1991-92[1]	Steady State[2]
A. Quality of Instructional Initiatives		
1. Increased Student/Faculty Interaction	88.2	264.5
2. Increased Reliance on Small Group Work		
3. Increased Requirements for Written Work		
4. Improving the Instructional Skills of Faculty	0.8	2.5
	89.0	267.0
B. Quality of Educational Resources		
5. Enhanced Instructional Equipment and Library Resources	12.0	36.0
6. Enriched Student Supports	1.1	3.4
7. Curricular Enrichments	3.7	11.2
	16.8	50.6
Total Program Costs	105.8	317.6

Notes:

1. Funds required in the first year of the three-year phase-in of the Educational Renewal Program, to be provided through Government grants and fee revenue.

2. Annual funds required in the steady-state once the Educational Renewal Program has been phased-in, to be provided through a combination of Government grants and fee revenue.

Council believes that in the interest of public accountability, Government should be assured as effectively as possible that the outcomes desired are in fact achieved through the funds provided. Effective monitoring of these expenditures would provide a measure of accountability and permit tracking of the effectiveness of these enrichments on system performance. Council is willing to work with the university community and Government to develop some approaches or measures to track quality improvements. Council believes that if the challenge of quality assurance is to be addressed in a defensible, concrete and visible manner, the development of an appropriate set of quality measures should be guided by a number of principles. First, the selection of measures must be guided by both pragmatic considerations of availability and costs and theoretical considerations of utility and value of information conveyed. Further, evaluation should be structured in such a way as to promote continual institutional improvements upon past performance, while reflecting institutional diversity, rather than encouraging attainment of a minimum standard across the system. In addition, institutions should become stakeholders in such evaluation systems which minimize the use of intrusive measures and which do not threaten established patterns of academic freedom. Neither should evaluation serve to promote homogeneity and conformity across the system. Ideally, individual institutions should be allowed to place different emphases on the various approaches to measurement of quality improvement as deemed appropriate given their unique missions and objectives. Finally, Council believes that nothing effective in this area can be done without the full co-operation and beneficial advice of the institutions.

In Advisory Memorandum 89-VI, Council recommended that the introduction of quality enhancement resources be a shared responsibility of both Government and students.[12] Council maintains this position and recommends that students, as the direct beneficiaries of instructional quality improvements, bear a portion of the costs associated with these new initiatives. Therefore, in addition to the increase recommended in 90-24, Council recommends that fees be increased by a further amount to provide additional fee revenue for targeting quality enhancements in teaching. In the past, it has been Council policy to recommend fee increases which are proportionate to the percentage increase in Government grants. Should this methodology be maintained, a 5.1% increase in fees and operating grants would be required in 1991-92 to provide $105.8 million in support for the first year of the phase-in of the $317.6 million Educational Renewal Fund. Council notes that any additional fee increases must be accompanied by sufficient enrichments to OSAP loans and grants. Council emphasizes that the grant component of OSAP assistance must be expanded to ensure that student representation from lower income families is not unduly disadvantaged as tuition fees are raised.

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[12] Ontario Council on University Affairs, Advisory Memorandum 89-VI, Government Support of the University System in 1990-91, pp. 27-28.

Accordingly, Council *recommends to the Minister and Lieutenant-Governor in Council:*

> *OCUA 90-17*
> *GOVERNMENT GRANTS AND TUITION FEES FOR 1991-92 TO SUPPORT INSTRUCTIONAL QUALITY ENHANCEMENTS IN ONTARIO UNIVERSITIES*
>
> *THAT* through the establishment of an Educational Renewal Fund in the manner outlined above, funded through a combination of Government grants and formula fees, $89 million be provided in 1991-92 to support instructional quality enhancements and a further $16.8 million be provided in 1991-92 to support enhancements to the quality of educational resources at provincially-assisted universities and their affiliated colleges, Ryerson Polytechnical Institute, the Ontario Institute for Studies in Education, the Ontario College of Art, and Dominican College, and that any increase in tuition fee rates be fully reflected in corresponding enrichments to the grant and loan provisions extended through the Ontario Student Assistance Program.

2.2 Enhanced Space Utilization

Representations made to Council during both the 1989 and 1990 Spring Hearings brought forward grave institutional concerns over physical capacity constraints in Ontario's institutions. Many references were made to suggest that the quality of instruction was being adversely affected by classrooms, laboratories and libraries which are being crowded beyond existing capacity in the face of record enrolment levels. Council notes also the findings of a study recently released by the Council of Ontario Universities (COU) which highlighted opportunities to improve existing space utilization.[13]

Council acknowledges that sufficient new space construction is underway in the system which should assist greatly in addressing the physical capacity constraints which are jeopardizing the quality of instruction. Council believes, however, that additional funds should be provided to enable institutions to address directly improvements to instructional space through planned renovations and alterations. A sufficient supply of smaller classrooms must be available to support a reduction in student/faculty ratios as recommended in this advice. Council notes further that the renewal of full-time faculty and support staff complements, recommended in this advice, will also require further office space. In view of these pressures on existing space, Council believes that enrichments should be made to supplement support provided through the Renovation Fund, which was introduced in 1986-87 and is currently maintained at a level of $20 million annually. Council recommends that an additional $3.9 million be made available annually for a three-year period to support a total $11.7 million in capital projects which will alleviate overcrowding in classrooms, laboratory, and study space; adapt classrooms for the use of computer technologies and new teaching formats; and provide office space for additional faculty and support staff. $11.7 million is the amount required to offset inflationary erosion over the intervening years since the introduction of the Renovation Fund; specifically, the accumulated inflationary indexation not provided for under the $20 million Fund between 1987-88 and 1991-92.

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[13] Council of Ontario Universities, Classroom Space Utilization in Ontario Universities 1988-89, February 1990.

Accordingly, Council *recommends to the Minister and Lieutenant-Governor in Council:*

> *OCUA 90-18*
> *GOVERNMENT GRANTS FOR 1991-92 TO SUPPORT ENHANCED SPACE UTILIZATION*
>
> *THAT* $3.9 million in Government grants be provided for 1991-92, as outlined above, to support enhanced space utilization in the provincially-assisted universities and their affiliated colleges, Ryerson Polytechnical Institute, the Ontario Institute for Studies in Education, the Ontario College of Art and Dominican College.

2.3 Program to Renew Ontario's Educators

An adequate supply of educators is a prerequisite to ensuring quality instruction not only in universities, but in all levels of the Province's educational institutions. In seeking to renew teaching complements, the education sector will look to the universities to play a central role in supplying educators for elementary and secondary schools, Colleges of Applied Arts and Technology (CAATs), and universities. The issue is not simply replacement of the existing stock of educators, but rather renewal through the recruitment, training and deployment of qualified, intellectually vital and adaptable teachers representative of the population at large who will serve as role models for future generations. The challenge of renewal is profiled in detail in the sections below, followed by Council's response in the form of formal recommendations.

2.3.1 Renewing Ontario's Educators: Overview of the Challenge

a) Elementary and Secondary Schools

Substantial work has been underway to determine the nature of the supply and demand for elementary and secondary school teachers in Ontario. Available projections of supply and demand were taken into consideration in the launch of the corridor negotiation process initiated by Council in August, 1989 in which teacher education was identified as a priority area for enrolment growth. The corridor exercise, which was concluded in March, 1990, made a modest contribution to the expansion of teacher education enrolments. With the limited funds available for allocation in the corridor revision, it was recognized that the corridor exercise could not be expected by itself to address fully the emerging shortages in the field of teacher education.

The Ministry of Education projects that the approved corridor levels will meet the predicted demand for graduates until September, 1992. Beginning in September 1992 through to September 1995, it is expected that approved corridor levels of enrolment will fall short of the anticipated need. While the precise magnitude of the shortfall will be studied by the Teacher Education Council of Ontario (TECO), the Ministry of Education currently predicts that over that three-year period, excess demand is projected at 1,382 FTEs. By September 1995, it is anticipated that the approved corridor levels will once again be consistent with the required demand for teacher education graduates.[14]

While Province-wide shortages are not expected until 1992, there are currently linguistic, programmatic and regional imbalances in the supply and demand of teachers in the Province which are expected to continue over the next five years. While further study at TECO will seek to identify the precise areas of imbalance, a number of potential shortage areas appear likely in such programs as technological studies, science, mathematics, French as a First Language and French as a Second Language. It might also be the case that divisional imbalances may arise with significant excess demand for teachers at the intermediate/senior level. Further study by TECO will provide the specific areas and dimensions of such projected shortages. The demand profile for teachers over the projection period will of course be affected by numerous factors, including shifts in student demand and public policy. For example, a shift in student preferences toward the sciences or technological studies -- subjects requiring smaller class sizes -- would have the effect of increasing the demand for teachers. Similarly, Government initiatives which serve to restrict class sizes or increased release time provided for through collective agreements would create additional demand for teachers in the Province.

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[14] Centre for Teacher Education, Ministry of Education.

In terms of student demand, there currently exists significant excess demand for admission to Faculties of Education. As this situation is likely to persist over the near term, it is unlikely therefore that there will be a need for broad-based enhancements to induce students to seek elementary or secondary teaching credentials. Nevertheless, further work undertaken by TECO may reveal that an apparent lack of student interest in particular teacher education specializations or in certain regions of the province require policy attention.

b) Colleges of Applied Arts and Technology

The aging of the college faculty presents a significant human resource challenge to Colleges of Applied Arts and Technology. It is estimated that 20% or 1,600 FTE teachers in the colleges will have reached age 65 by the year 2000. By the year 2005, it is estimated that 49% or 3,900 faculty will retire.[15] The vast majority of teaching master replacements will require a university degree and may ideally possess a graduate degree. This will particularly be the case if, in the reconstruction of their mandate, the colleges move in a direction which stresses general education. Most of these new instructors will be drawn from Ontario rather than recruited abroad. In addition to the recruitment of new faculty, the Colleges of Applied Arts and Technology will be confronted with an additional challenge of providing for enhanced upgrading of current faculty who seek to improve their formal university credentials.

c) Universities

As Council emphasized in Advisory Memorandum 89-VI, the current age profile of faculty suggests that universities, not only in Ontario but also in other jurisdictions, may be presented with a tremendous challenge in faculty renewal. The issue of faculty renewal has been addressed in two different initiatives to date. In May, 1986, the Government announced its intention to support 500 Faculty Renewal appointments over the five-year period spanning 1986-87 through 1990-91. However, with 10% enrolment growth since 1986-87, the Faculty Renewal Fund in effect has provided faculty to simply accommodate growing student numbers, rather than provide bridging to retirements or a reduction in student/faculty ratios. More recently, the issue of faculty renewal was addressed in the course of the corridor negotiations, in which the "replacement of the professoriate" was identified as a priority target for enrolment growth. Accordingly, additional BIUs were assigned to this priority, a proportion of which were allocated directly on the basis of expected retirements. Institutional aspirations to respond to faculty renewal were, however, necessarily constrained by the limited funds made available for the corridor shift process. As a result, the corridor negotiations provided only a marginal increase in graduate enrolments to replace the professoriate.

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[15] Ontario Council of Regents, Vision 2000, The College System – An Empirical Snapshot, January, 1990.

The precise dimensions of the faculty renewal challenge facing Ontario's universities have not been identified to date. Substantial work is underway at the present time to clarify the nature of the renewal challenge in the Province. The Council of Ontario Universities, with Council representation, has established a Task Force on Faculty Renewal to examine this problem as it exists for the Province of Ontario. The Association of Universities and Colleges of Canada is pursuing similar work on a national basis. Clearly, further work is required before definitive estimates may be made on magnitude and timing of faculty renewal requirements in Ontario.

Significant research of this kind has been undertaken in other jurisdictions. In the United States, a recent study[16] projects a situation in which significant shortages will arise starting in 1997 in the order of 6,000 to 10,000 faculty annually. The fact that universities in other jurisdictions will be experiencing similar needs to replace retiring faculty hired in the 1960s and early 1970s means that the international market for young scholars will become increasingly competitive. Unlike in the 1960s when the university system was significantly expanded, Ontario will be unable to replace university faculty by "buying off-the-shelf" foreign academics to fill its needs. Faculty will be unavailable in sufficient quantities as other countries seek to fill their own needs. Indeed, Canada may well become a recruiting ground. Anecdotal evidence suggests that Ontario's institutions have already begun to experience difficulties in recruiting high quality candidates. One such high demand area is that of accounting, where Ontario universities are encountering difficulties competing for faculty in a highly competitive labour market. The Institute of Chartered Accountants of Ontario notes that Ontario institutions cannot compete with the salary and support offers made to them by American and other Canadian universities. The Institute states further that:

> While we believe that our efforts and those of the universities have been well-intentioned, the problems persist. For example, our commitment to doctoral study support has passed the million dollar mark but, during recent years, five Institute-supported CAs who have completed their PhDs have not returned to Ontario, even though the support they have been given (typically $45,000) has to be repaid if the recipient does not "earn forgiveness" through teaching at an Ontario university. Those who have not returned to Ontario have informed us that the price to do so is too high in terms of opportunity to work with colleagues of similar

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[16] William Bowen and Julie Ann Sosa, Prospects for Faculty in the Arts and Sciences: A Study of Factors Affecting Demand and Supply, 1989.

> backgrounds and interests, levels of teaching and research support, compensation and teaching goals.[17]

The accounting field is but one high demand professional area in which recruiting difficulties are being experienced and Ontario's universities are not able to compete for their own graduates. One institution reported losing 8 senior researchers over the past few months to institutions in the United States, British Columbia and Switzerland. Higher salaries, lower workloads, better facilities and research support were quoted as the key reasons for the loss of those faculty. Another institution notes recent efforts to attract a molecular biologist who had also received a "competing" offer from an American university: a $250,000 research budget, a new laboratory, and no teaching duties for the first year.

The domestic preparation of doctoral graduates has increased in recent years. However, large representations of visa students among these graduates and escalating competition from recruiters in non-academic sectors suggest that many of these recent graduates will not be available to fill academic positions in Ontario universities.

2.3.2 Council's Response

In this section, Council recommends on an integrated plan to renew the supply of educators in Ontario over the next several years. This section speaks to two components of the renewal challenge. First, sufficient numbers of high quality students must be attracted to and graduate from the programs which will develop Ontario's future educators. The second challenge involves creating sufficient capacity in the universities to accommodate these students who will be responding to this demand for instructors. These aspects of renewal are addressed in Council's recommendations set out in the sections which follow.

There is effectively a third challenge in renewing the supply of educators; namely, that of ensuring that Ontario's institutions are capable of attracting and recruiting quality candidates in an intensely competitive international market. Council recognizes that Ontario's relative competitiveness in hiring strong candidates will be influenced not only by the relative salaries and type of contract offered, but also by the quality of the teaching environment, shaped by student/faculty ratios and instructional resources, and the adequacy of research provisions. This aspect is addressed in part by the initiatives proposed in the Educational Renewal Program of Section 2.1. By introducing substantial improvements to academic working conditions, those initiatives will serve to enhance the relative attractiveness of employment in Ontario's universities. It is also felt that high costs of living have and will continue to negatively impact on recruitment successes in Ontario, particularly for institutions in the metropolitan Toronto area.

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[17] Letter from the Institute of Chartered Accountants of Ontario, to the Presidents and the Chairmen of Boards of Governors of all Ontario universities, May 14, 1990.

a) Elementary and Secondary Schools

In anticipation that the demand for teachers will exceed the supply under the approved corridor levels of enrolments between 1992 and 1994, Council recommends that an additional $13.2 million be provided over a three-year period to fund an additional 2,764 BIUs at an average BIU value of $4,784 through Strategic Program Corridors. This amount reflects global shortages which are currently projected at 1,382 FTEs. Council recommends that $4.4 million be provided to universities through this initiative for 1991-92. As this excess demand is expected to abate somewhat after 1994, Council recommends that resources should be directed to flexible programs which are capable of downsizing as the demand for graduates subsides. Funding enrichments in teacher education provides government with an opportunity to emphasize initiatives focused at preparing visible minorities, natives and other under-represented groups for careers as teachers.

While overall levels of student demand do not signal overall softness in student demand for teacher education programs at the present time, Council believes that initiatives must be brought forward to address critical imbalances in certain disciplines, regions and languages. For this reason, it recommends that special targetted bursaries and scholarships tied to teaching careers be provided to attract students into these high demand areas. Council recommends that $7.8 million in targetted scholarships be made available over a three-year period to encourage students to prepare for teaching careers in identified high-need disciplines, languages and regions as identified by the Teacher Education Council of Ontario. This is based on an average scholarship value of $5,649 -- one-half the value of the 1990-91 Ontario Graduate Scholarship award -- for 1,382 Bachelor of Education students. For 1991-92, Council recommends that $2.6 million be made available to universities through this initiative.

b) Colleges of Applied Arts and Technology

Consistent with the human resource challenges of other educational institutions, Ontario's Colleges of Applied Arts and Technology must confront an aging faculty and demonstrate the ability to recruit and retain highly motivated and effective instructors. Through ongoing consultations with the Council of Regents, future faculty renewal needs for the Colleges should be identified, specifically noting the levels and types of demand foreseen. Where shortages in student demand be anticipated, provision should be made to address the demand through the provision of targetted bursaries to attract students to programs which will supply instructors for the high-need teaching areas of the colleges. As a preliminary commitment for renewal in Ontario's Colleges of Applied Arts and Technology, Council recommends that $0.6 million be provided over a three-year period, calculated on the basis of 50 scholarships to be made available at the 1990-91 Ontario Graduate Scholarship award value of $11,297. This is an opportunity to ensure that teachers are available in the right disciplines, language and region of the province. Council recommends that $0.2 million of this amount be made available for 1991-92.

Similarly, if capacity needs to be expanded in programs to meet this demand, additional resources should be channelled into these programs. Council recommends that $0.7 million be provided through Strategic Program Corridors to fund additional BIUs over a three-year period as an initial commitment of support for university programs most suited to the preparation of College of Applied Arts and Technology instructors, and that $0.2 million be made available in 1991-92. This amount reflects the addition of 50 new master's level students (150 BIUs) at a BIU value of $4,784. Research into the staffing needs of the colleges may point to the need for a special mix of qualifications for these instructors. In addition to the basic discipline competency, programs which foster the diverse instructional skills required by college instructors might be considered. This might include formal graduate programs such as M.A.(T), M.Sc.(T) and M.Ed programs which are geared to teachers. Consideration might also be given to funding innovative, new graduate programs appropriately designed to meet the needs of both new college teachers and existing staff seeking formal upgrading of their educational qualifications.

c) Universities

Universities have indicated to Council that given the world-wide demand for faculty in the near future, additional graduate enrolment will need to be accommodated. However, as indicated earlier, the dimensions of the faculty renewal challenge have not been established to date. Accordingly, Council is not prepared at this time to recommend on the full level of support required to address faculty renewal requirements for the Province. Council will defer such recommendations until the studies currently underway have been completed and the dimensions of faculty replacement confirmed.

Council is, however, concerned that the Faculty Renewal Fund, phased-in during the five-year period of 1986-87 through 1990-91, is scheduled to be phased out beginning in 1991-92. For 1991-92, an amount of $11.9 million is to be phased out of this Fund, leaving a remaining sum of $13.1 million available for allocation in support of faculty renewal. This significant reduction in funds at a time of continuing and growing need for faculty renewal in Ontario's universities threatens to severely compromise recruiting efforts in 1991-92.

From its inception, the Faculty Renewal Fund was designed as a bridging fund to the time when sufficient retirements would be available to finance the new faculty appointments made as a result of the fund. However, with significant enrolment growth during this period, the additional faculty hired no longer become bridging faculty but a vital net addition to faculty complements to meet new demand. As noted above, even with the additional faculty hired, student/faculty ratios have increased during this period. It would be extremely counter-productive to remove this funding at a time when more faculty are desperately needed.

It is critical that all funds freed up through the phase-out of the Faculty Renewal Fund be made available to Ontario's universities to support the production of graduate students for future faculty positions and ensure a competitive academic environment which will be sufficiently attractive to top scholars so as to permit the recruitment of quality faculty. Council therefore recommends that the $11.9 million being phased out of the Faculty Renewal Fund be made available to the Province's institutions for 1991-92. During the 1990 Spring Hearings, Council explored the issue of allocating Faculty Renewal Funds freed-up as the fund is phased out. It will provide advice on the appropriate allocation of these funds later this year.

Council identifies faculty renewal in the universities as a key issue worthy of careful study and advance planning. Council applauds initiatives underway to examine the magnitude of this problem and underscores the importance of exploring various ways in which faculty renewal may be addressed. Given the long time-span required to train university faculty, a gearing up of graduate enrolments in high demand areas, once identified, will need to be implemented well in advance of the retirements. Council concurs with the Council of Ontario Universities, which notes:

> While considerable lead time is required to set solutions in place, the basic problem has been identified with much advance warning. The test will be how effectively we use the lead time available.[18]

As recommended in Council's advice on Ontario Graduate Scholarships in Advisory Memorandum 89-VIII, it will be extremely important to attract the best and the brightest students to graduate studies in Ontario universities to ensure that there is a sufficient cohort of well-trained scholars to fill the increasing faculty vacancies. Special scholarships to attract students to graduate studies in areas of high need will play a vital role filling these needs, particularly in science and engineering.

Council acknowledges that responses to faculty renewal must not be confined to increasing the number of students participating in graduate study, but also seek to enhance the efficiency in Ontario's university system through the improvement of completion rates and shortened lengths to degree completion. Significant inefficiencies in the system are currently reflected in unacceptable levels of doctoral throughput, currently estimated currently at 60%.[19] To some extent, improved labour market conditions serve to improve completion rates among graduate students. Recent studies also point to the importance of a student's thesis supervisor in providing the guidance and support to promote timely completion of graduate degrees.[20] Frequent contact with supervisors; the selection of an achievable, well-defined thesis topic; the acquisition of effective research techniques; access to current literature; and tightly-run programs all contribute to timely completions among graduate students.

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[18] Council of Ontario Universities, Faculty Renewal in Ontario Universities, April, 1990, p. 2.

Another fundamental influence is the adequacy of levels of student support, which plays an important role in improving lengths to completion and retention rates of graduate students. In this regard, Council gratefully acknowledges Government's acceptance of recommendation 89-47 in Advisory Memorandum 89-VIII, in which the recommended value of the stipend for 1990-91 was accepted as requested, at 80% of the estimated mean value of the Natural Sciences and Engineering Research Council and Social Sciences and Humanities Research Council award levels. Enrichments to graduate support provide Government with an opportunity to foster marked increases in participation among groups of individuals who would otherwise be compelled to forego the completion of graduate degrees due to the harsh realities of financial hardship.

d) Summary Recommendations for the Program to Renew Ontario's Educators

In the preceding sections, Council identified an opportunity for Government to make an important contribution to renewing educators in Ontario's elementary and secondary schools, Colleges of Applied Arts and Technology and universities. Costs associated with the recommended initiatives are set forth in Table 2.

Accordingly, Council *recommends to the Minister and Lieutenant-Governor in Council:*

OCUA 90-19
STRATEGIC PROGRAM CORRIDOR FUNDING FOR 1991-92 TO SUPPORT THE TRAINING OF FUTURE EDUCATORS FOR ELEMENTARY AND SECONDARY SCHOOLS AND COLLEGES OF APPLIED ARTS AND TECHNOLOGY IN ONTARIO

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[19] Dr. Rose Sheinin, Review of the Recommendations of the Report on the "Status of Women in Ontario Universities", cited in "Faculty Renewal in Ontario Universities", COU, April 1990.

[20] Dr. Roberta Weil, 'Factors Influencing Doctoral Students Time to Degree', Association for Insitutional Research, Kentucky, May 14, 1990.

Table 2

Cost to Government of the Program to Renew Ontario's Educators ($ millions)

		1991-92	Total 3-Year Program
A.	**Elementary and Secondary Schools**		
1.	Strategic Corridor Funding	4.4	13.2
2.	Targetted Bursaries	2.6	7.8
		7.0	21.0
B.	**Colleges of Applied Arts and Technology**		
1.	Strategic Corridor Funding	0.2	0.7
2.	Targetted Bursaries	0.2	0.6
		0.4	1.3
C.	**Universities**		
1.	Operating Funding	11.9	- [1]
	Total Program Costs	19.3	- [1]

Notes:

1. Faculty renewal recommendations for the universities over the full three-year period are not available at this time.

THAT $4.6 million in Government grants be provided for 1991-92 through a Strategic Corridor Envelope, in the manner outlined above, to provincially-assisted universities and their affiliated colleges, Ryerson Polytechnical Institute, the Ontario Institute for Studies in Education, the Ontario College of Art, and Dominican College to support the renewal of educators for Ontario's elementary and secondary schools and Colleges of Applied Arts and Technology.

OCUA 90-20

TARGETTED BURSARIES FOR 1991-92 TO SUPPORT THE TRAINING OF FUTURE EDUCATORS FOR ELEMENTARY AND SECONDARY SCHOOLS AND COLLEGES OF APPLIED ARTS AND TECHNOLOGY IN ONTARIO

THAT $2.8 million in targetted bursaries be provided in 1991-92 to be made available to students at provincially-assisted universities and their affiliated colleges, Ryerson Polytechnical Institute, the Ontario Institute for Studies in Education, the Ontario College of Art, and Dominican College to support the renewal of elementary and secondary school and College of Applied Arts and Technology educators, in the manner outlined above.

OCUA 90-21

GOVERNMENT GRANTS FOR 1991-92 TO SUPPORT FACULTY RENEWAL IN ONTARIO'S UNIVERSITIES

THAT the $11.9 million being phased out of the Faculty Renewal Fund in 1991-92 be made available to provincially-assisted universities and their affiliated colleges, Ryerson Polytechnical Institute, the Ontario Institute for Studies in Education, the Ontario College of Art, and Dominican College to assist in faculty recruitment efforts.

Council believes that the funding recommended in 90-19 is necessary and appropriate to increase instructional capacity in the universities. Increasing instructional capacity in university programs which will develop teachers for elementary and secondary schools and the Colleges of Applied Arts and Technology will require additional resources to hire more faculty, provide support staff and fund overhead costs such as libraries, equipment, and the operation of the associated space.

Council believes the provisions outlined in recommendation 90-20 are required to attract students to high demand programs identified by Council and other bodies. This will create an opportunity to expand enrolments in programs identified as important for Colleges of Applied Arts and Technology teachers and address projected shortages and linguistic, regional and program imbalances in the area of elementary and secondary school teacher education.

Recommendation 90-21 will ensure that adequate funds are available to support the continuing faculty recruitment in Ontario's universities.

3.0 Research Overheads Funding

On May 18, 1990 with acceptance of Council's allocative advice the Minister asked Council to review the Research Overheads/Infrastructure Envelope to confirm whether or not the distributive mechanism used for this envelope is consistent with the modified formula recommended in Advisory Memorandum 89-II Modification of the Operating Grants Formula. Council has not yet completed a planned review of the Research Overheads/Infrastructure Envelope which will examine both the adequacy of the envelope and the mechanism for allocating the envelope, but in this memorandum wishes to address in part, the issue of adequacy.

A comprehensive review of both the adequacy of infrastructure coverage and the allocative mechanism of the research overheads envelope will be undertaken later this year. It will include a review of research overhead coverage in other jurisdictions, the adequacy of Government coverage of total research overhead costs associated with peer-adjudicated research grants, and a review of the mechanism that is currently used to allocate these funds. The institutions will be provided with an opportunity to submit to Council their views and analysis with respect to this issue.

The Research Overheads/Infrastructure Envelope was established with the Minister's acceptance of Advisory Memorandum 86-VII Modification of the Operating Grants Formula. In that memorandum Council indicated that:

> These funds should be used to address inadequacies of support for the indirect or overhead costs of existing research. Council concurs that there is a need to provide special funding to recognize these costs. Therefore, $25 million has been allocated towards covering the extraordinary shortfall in the funding of the overhead costs of sponsored research. **The $25 million made available provides only partial recognition of shortfall in the funding of research overheads** [emphasis added].[21]

A 1982 Canadian Association of University Business Officers (CAUBO) study found that each dollar of federally sponsored research required an additional institutional expenditure of 50 cents, comprising of the cost of technical support staff, libraries, the use and alteration of buildings, equipment and as well as indirect administrative costs. These costs are not covered by federal granting agencies.

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[21] Ontario Council on University Affairs, Thirteenth Annual Report, Advisory Memorandum 86-VII, Modification of the Operating Grants Formula, pp. 178-179.

In the United States the costs of infrastructure are carried by the granting agency and not the operating budget of the institutions. Federal contracts cover research overhead costs at a rate of 65%. The Government of Ontario allows for a 65% overhead supplement in its path-breaking Centres of Excellence programs. The lack of coverage for infrastructure costs in Canadian federal grants is based on the premise that provincial operating grants will provide for research infrastructure. This is only partly true. Provincial operating grants available to cover research overhead costs fall significantly short of actual costs incurred. The shortfall has been corrected in only a minor way with the introduction of the Research Overheads/Infrastructure Envelope.

The federal government announced in October, 1989, 14 networks in a new federally funded Networks of Centres of Excellence (since that time 1 more network has been added). The networks will include from 5 to 20 institutions and companies and will share $240 million in federal funding administered through the three Federal research granting Councils. The costs that will not be funded through these networks are the indirect or overhead costs of research. The lack of coverage of these costs associated with these networks could jeopardize the longer-term viability of this expanded research mandate carried out in Ontario institutions given the current shortfall associated with Ontario funding of such costs. The estimate provided by the Ministry of Colleges and Universities of the new money to flow to Ontario institutions is 31% of the total net new funds to be allocated or $75.0 million. Assuming an approximate indirect cost rate of 50%, the implied additional burden to Ontario institutions in terms of indirect costs is $37.5 million. When these costs are added to the current shortfall on indirect cost funding the research intensive institutions in Ontario might find their ability to comply with the stringent terms of these grants seriously impaired. Under the conditions of the grants, funds will be awarded for 4 or 5 years and will be subject to review prior to the end of the third year of support. The funding for any non-performing network of centres will be phased down after the third year and a phase-out will be negotiated with the institution.

Pending a more thorough review of the coverage of research infrastructure costs, Council believes that a modest increase of $15 million would be an appropriate first step and a conservative underestimation the funds required.

Accordingly, Council *recommends to the Minister and Lieutenant-Governor in Council:*

OCUA 90-22
RESEARCH OVERHEADS/INFRASTRUCTURE ENVELOPE

THAT the Research Overheads/Infrastructure Envelope in 1991-92 be expanded by a minimum of $15 million.

4.0 Calculation of Basic Funding Requirements for 1991-92

Council's calculation of the appropriate level of operating support required for 1991-92 is presented in Section 4.2 and follows the methodology applied in last year's Funding Advice. In Section 4.3, Council identifies the funds necessary for the cyclical renewal and deferred maintenance of the existing physical plant and in Section 4.4 it identifies the incremental costs associated with bilingualism programs.

4.1 Basic Funding Objectives for 1991-92

For 1991-92, Council maintains the basic funding objectives set out for 1990-91.

The basic funding objectives underlying the 1991-92 funding advice are:

- to offset inflationary trends; and
- to maintain levels of service dependent upon basic operating funding.

4.2 Cost of Basic Funding Needs for 1991-92

Table 1 details the cost of Council's basic funding objectives for 1991-92.

4.2.1 The 1990-91 Base (Column 1, Table 3)

Council's estimate of the 1991-92 basic funding requirements for the university system is calculated by adjusting the universities' estimated 1990-91 expenditures by Council's estimate of the costs of maintaining the existing level of service. These calculations are based on the assumption that 1990-91 expenditures will equal estimated revenues. However, Council is aware that in some cases this is not the situation. For example, in 1990-91 the University of Toronto, The University of Western Ontario and Ryerson Polytechnical Institute expect to incur a deficit.

Council estimates that the 1990-91 base of operating revenues and expenditures of all institutions (the fifteen provincially-assisted universities, the affiliated colleges, Ryerson Polytechnical Institute, the Ontario Institute for Studies in Education, the Ontario College of Art, and Dominican College) total $2,237.6 million. The 1990-91 base expenditures are disaggregated according to their approximate shares of the institutions' budgets; 81.0% for salaries and fringe benefits and 19.0% for non-salary items.

4.2.2 Increases in Costs due to Inflation (Column 2, Table 3)

Council has reviewed several 1991 forecasts of the increase in the Consumer Price Index (CPI). These projections range from 4.7% to 7.1%. A mid-point factor of 5.9% is used as Council's estimate of inflation. Based on this inflation factor, Council estimates the inflation-related costs of salaries and benefits to be $106 million.

Over the past five years, the differential rate of growth between the Ontario University Non-Salary Price Index (OUNSPI) and CPI has averaged -3.9%. The non-salary inflation factor used by Council for 1991-92 is derived by adjusting the projected 5.9% rate of inflation by this average differential between OUNSPI and CPI. The non-salary inflation factor used is 5.8%.

4.2.3 Increase in Cost of Maintaining Existing Service Levels (Column 3, Table 3)

Council continues to identify and make provision for the costs of service levels which are not related to inflation. For 1991-92, provision is made for both salary-related and non-salary service level costs.

a) Salary-related Service Level Costs

Council's 1991-92 funding advice includes a provision for meeting the salary-related costs of service levels as measured by the net cost of progress-through-the-ranks (PTR) for faculty and non-academic staff. The faculty flow model developed by COU predicts that for the existing age distribution of faculty, the net costs of providing for PTR in 1991-92 will be 1.15% of salaries and benefits. Council continues to use this estimate of net PTR costs also as a proxy for the net costs of providing for career progress for non-academic staff, since data on costs of career progress for non-academic staff are not sufficiently reliable to furnish an acceptable estimate of net PTR costs for this group. Therefore, the net cost of PTR for faculty and non-academic staff is estimated to be $22.1 million and is included in Council's provisions for service level costs for 1991-92.

b) Non-Salary Service Level Costs

In Council's funding advice for fiscal 1990-91, Council valued the existing stock of equipment and furniture at $1,253.3 million for that fiscal year. When revised by the most recent percentage change in OUNSPI for these components the value becomes $1,293.2 million.

Based on a 12-year replacement cycle, it is estimated that expenditures of $107.8 million will be required in 1991-92 to meet cyclical renewal needs. Expenditure information provided by the institutions for 1989-90 and budgeted for 1990-91 suggests that institutions can be expected to spend approximately $69.2

million from traditional sources of income in 1991-92 on equipment and furniture purchases and rentals. Council estimates that an additional $38.6 million must be made available in 1991-92 for the cyclical replacement of equipment and furniture.

4.2.4 Total Cost of Basic Funding Objectives (Column 4, Table 3)

The total cost of basic funding objectives in Column 4 of Table 1 is the sum of the first three columns. Council's estimate of the total cost of basic funding objectives for 1991-92 is $2,429.1 million, representing an 8.6% increase over the 1990-91 estimated expenditure base.

4.2.5 Estimated Government Grants Required to Meet the Basic Funding Objectives

As depicted in Table 4, Council estimates that income accruing to the university system in 1991-92, in addition to Government grants, will be:

i) from other sources, $117.3 million;

ii) from fees other than tuition fees, $36.0 million, which is the 1990-91 projection adjusted for a projected 2.0% increase in enrolment in 1991-92; and

iii) from formula tuition fees, $420.1 million at 1990-91 fee rates and including a projected 2.0% increase in enrolment in 1991-92.

Consistent with Council's advice on formula fee rates in Advisory Memorandum 79-IV, formula fee rates are to be increased by the same percentage as operating grants. Therefore, formula fee rates and Government grants should be increased by 8.7%, as noted in Table 4, line 8. Council believes this to be a reasonable increase in formula fee rates if the first two of Council's basic funding objectives are to be met.

Council estimates that of the total $2,429.1 million required, $1,819.0 million must be made available as Government operating grants to meet the cost of Council's basic funding objectives in 1991-92 (Table 4, line 11).

Accordingly Council *recommends to the Minister and Lieutenant-Governor in Council:*

OCUA 90-23
GOVERNMENT OPERATING GRANTS FOR 1991-92 TO MEET THE COST OF COUNCIL'S BASIC OBJECTIVES IN FUNDING

Table 3

The Cost of Basic Funding Objectives for 1991-92
($ millions)

Expenditure	1990-91 Base	Inflationary Trend	Service Level Costs	Cost of Basic Objectives
Salaries and Fringe Benefits	1,811.5	106.0	22.1	1,939.6
Non-Salary	426.1	24.8	38.6	489.5
TOTAL	2,237.6	130.9	60.6	2,429.1

Notes:

1. Factors for each column of the table are as follows:

	Salaries and Fringe Benefits	Non-Salary
Inflationary Trend	5.9%	5.8%
Service Level Costs	1.15% (Progress through the Ranks, PTR)	$38.6 million

2. The above factors are applied to the cumulative total of the previous columns.

PROVINCIALLY-ASSISTED UNIVERSITIES AND THEIR AFFILIATED COLLEGES, RYERSON POLYTECHNICAL INSTITUTE, THE ONTARIO INSTITUTE FOR STUDIES IN EDUCATION, THE ONTARIO COLLEGE OF ART, AND DOMINICAN COLLEGE

THAT $1,819.0 million in basic operating grants be made available in 1991-92 to the provincially-assisted universities and their affiliated colleges, Ryerson Polytechnical Institute, the Ontario Institute for Studies in Education, the Ontario College of Art, and Dominican College.

OCUA 90-24
FORMULA FEE RATES FOR 1991-92 TO MEET THE COST OF COUNCIL'S BASIC OBJECTIVES

THAT formula fee rates for 1991-92 be increased by the same percentage as operating grants, namely 8.7%, to provide $420.1 million in formula fee revenue to the provincially-assisted universities and their affiliated colleges, Ryerson Polytechnical Institute, the Ontario Institute for Studies in Education, the Ontario College of Art, and Dominican College, and that this increase in formula fee rates be fully reflected in the Ontario Student Assistance Program.

4.3 Cyclical Renewal and Deferred Maintenance of Physical Plant

In April, 1988 the Government announced a commitment of $440 million for the funding of capital projects at universities and colleges for the four-year period from 1988-89 to 1991-92. As part of this pre-commitment, a total of $77.7 million has been made available to Ontario universities for 1991-92.

Council notes that of the $77.7 million allocated for 1991-92, $44.9 million is available through the Major Project Fund which provides for increased space in the universities and covers the carry-over costs of existing projects. The $10.0 million provided in respect of the Special Enrolment Accommodation Program will further assist in relieving the overcrowding associated with recent enrolment pressures. An amount of $3.9 million is available to assist with the construction of student residences. The remaining $18.9 million provided through the Renovation Fund will be directed toward maintaining existing plant and supporting projects identified by Council in Advisory Memorandum 88-IV.

It remains Council's position that the provision of on-going cyclical renewal is essential to maintain the capital stock of the universities and that the necessary renewal will provide direct benefits for research and teaching in the universities.

Table 4

Cost to Government of Meeting Council's Basic Funding Objectives for 1991-92: Provincially-Assisted Universities Affiliated Colleges, Ryerson, OISE, OCA and Dominican College

1.	Cost of Basic Funding Objectives		2,429.1
2.	Other Non-Fee Revenue		(117.3)
3.	Other Fee Revenue		(36.0)
4.	Total Formula Fees and Government Operating Grants required to meet Council's Basic Funding Objectives		2,275.8
5.	Formula Fee Revenue at 1990-91 rates and the predicted 1991-92 level of enrolment funded by base operating grants		420.1
6.	Estimated 1990-91 Operating Grants		1,673.1
7.	Estimated 1990-91 Operating Grants and enrolment-adjusted Formula Fee Revenue (line 5 + line 6)		2,093.2
8.	Percentage increase in Operating Grant and Formula Fee Revenue $\frac{(\text{line 4 - line 7})}{\text{line 7}}$ X 100	8.7%	
9.	Additional Formula Fee Revenue generated by an 8.7% increase in formula fee rates		36.6
10.	Total formula Fee Revenue (line 5 + line 9)		456.8
11.	Cost to Government of Basic Funding Objectives (line 6 increased by 8.7%)		1,819.0

Council continues to believe that annual funding equal to 1% of the value of the space inventory in the university system is the absolute minimum necessary for major repairs, renovations, alterations and replacement projects. For 1991-92, thevalue of this space inventory has been adjusted for inflation by increasing last year's recommendation for capital assistance by the most recent annual increase in Canada's GDP Implicit Price Index for Non-Residential Construction.

Accordingly, Council *recommends to the Minister and Lieutenant-Governor in Council:*

OCUA 90-25

LEVEL OF SUPPORT FOR MAJOR REPAIRS, RENOVATIONS, ALTERATIONS AND REPLACEMENT PROJECTS IN 1991-92 FOR THE CYCLICAL RENEWAL OF THE EXISTING CAPITAL STOCK

THAT funds for capital assistance for new major repairs, renovations, alterations and replacement projects in 1991-92 be $44.3 million, plus any amount required for carry-overs and essential new construction.

In the 1990 Spring Hearings, several institutions indicated that one of the major undesirable impacts of coping with continued constraint was the further deferral of physical plant on the maintenance. One of the most compelling examples was cited by Queen's University in their Brief to Council, which included the deterioration in physical facilities as one of the non-financial deficits confronting the universities. Queen's Board of Trustees' task force on maintenance identified a $25 million shortfall in deferred maintenance. "These non-financial deficits are affecting the quality of the educational environment, morale of faculty and staff, and the provincial and federal investment in universities."[22]

A 1988 study entitled The Decaying American Campus, A Ticking Time Bomb, by the National Association of College and University Business Officers (NACUBO), The Association of Physical Plant Administrator (APPA) and Coopers and Lybrand[23] found that "In the competition for funds between personnel and academic programs, facilities have been losing." The study recommended a range for annual capital renewal funding between 1.5 to 3 per cent of the total replacement value of America's higher education plant.

In the absence of more complete analysis of deferred maintenance needs, Council continues to estimate the cumulative shortfall in Government funding for deferred maintenance in the same manner as last year's advice. From the inception of Council's advice on this matter to the present, this amounts to $358 million in 1990 dollars. Council recommends that Government address this problem over a ten-year period beginning in 1991-92, by funding annually 10% of the estimated cumulative shortfall in Government funding for cyclical renewal of the physical plant ($35.8 million).

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[22] Queen's University, Brief to the Ontario Council on University Affairs, May 1990, p. 1.

[23] The Decaying American Campus, A Ticking Time Bomb, A Joint Report of Association of Physical Plant Administrators of Universities and Colleges and National Association of College and University Business Officers in co-operation with Coopers and Lybrand, 1989.

Accordingly, Council *recommends to the Minister and Lieutenant-Governor in Council:*

OCUA 90-26
LEVEL OF SUPPORT FOR DEFERRED MAINTENANCE OF PHYSICAL PLANT IN 1991-92

THAT in addition to the amount recommended in 90-25, funds for capital assistance in 1991-92 include, at a minimum, $35.8 million for deferred repair, renovations, alterations and replacement projects.

4.4 Incremental Costs of Bilingualism Programs

Council's third study of the incremental costs associated with bilingualism in Ontario universities for 1987-88 was completed in May 1989. The costing methodology adopted by Council and the results of that study were provided in Advisory Memorandum 89-III.[24] The study indicated that the 1987-88 total cost of bilingualism activities was $21.2 million and when escalated by the percentage increase in operating grants for 1988-89 and 1989-90, the 1989-90 incremental costs of bilingualism totalled $23.1 million. This 1989-90 estimate of the incremental costs of bilingualism exceeded the bilingualism grants' allocation for 1989-90 by $1.7 million.

In its 1990-91 funding advice, Council recommended that $1.8 million[25] be provided in 1990-91 to cover the estimated shortfall on bilingualism grants. This updated shortfall for 1990-91 was derived by increasing the $1.7 million shortfall for 1989-90 by Council's recommended 8.6% increase in 1990-91 operating grants. The identified 1990-91 shortfall was not acted upon and Council therefore continues to estimate the shortfall on bilingualism grants for 1991-92 in the same manner as indicated in last year's advice.

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[24] Ontario Council on University Affairs, Advisory Memorandum 89-III, The Allocation of the Government's Operating Support for the University System in 1989-90, pp. 18-24.

[25] Ontario Council on University Affairs, Advisory Memorandum 89-VI, Government Support of the University System in 1990-91, p. 35.

Council estimates the 1991-92 shortfall on bilingualism grants to be $2.0 million. This shortfall for 1991-92 was estimated by increasing the $1.8 million shortfall for 1990-91 by Council's 8.7% recommended increase in operating grants for 1991-92.

Accordingly, Council *recommends to the Minister and Lieutenant-Governor in Council:*

OCUA 90-27
ADDITIONAL FUNDING FOR THE INCREMENTAL COSTS OF BILINGUALISM PROGRAMS

THAT $2.0 million be provided in 1991-92 in recognition of the documented incremental costs of bilingualism programs.

5.0 Conclusion

The minimum level of support to maintain last year's level of service, as recommended in Section 4, does not allow for innovative and creative responses by institutions to meet new demands in support of a more competitive economy. If greater demands are to be placed on Ontario universities, it is only through funding enrichments such as those recommended in sections 2 and 3 which will permit universities to meet these goals.

Growth in university operating support has not kept pace with overall growth in the provincial economy over the past decade. Government, by accepting Council's recommendations contained in Advisory Memorandum 89-II and Advisory Memorandum 90-I, demonstrated an unprecedented commitment to enhance university financing by taking into account recent enrolment growth and promoting a coordinated and planned approach to future enrolment. As Government endeavours to place Ontario on the leading edge of an internationally competitive, technology-based and environmentally sound economy, Council reiterates that base funding provisions must reflect the demands placed on universities in achieving these goals.

By any standard, Ontario's universities present the citizens of the Province with one of their greatest social service bargains. On a per unit costs basis Ontario's universities offer a comparatively cheap education. If the Ontario university system's income was to be placed on par with that of the total Canadian system (exclusive of Ontario), the British Columbian, and the Albertan systems, then it would require increased support by Treasury and fee paying users by 5%, 10% and 15% more respectively. Were Ontario universities to receive income similar to that provided to systems in Wisconsin, Michigan and Great Britain, Ontario's universities would cost the taxpayers 54%, 68% and 69% more than they presently pay.

Ontario's universities have recently accommodated large numbers of additional students at relatively low cost. Seen from one perspective that is the measure of their efficiency and their responsiveness to societal needs. But like other products bought cheap, at bargain prices, the service provided may not over time prove to be entirely what it seems. If the quality of service is compromised in the process of accommodating additional students the system is not becoming more efficient; it is serving the population less effectively. Council is convinced by the evidence gathered in public hearings that increases in class size, reductions in laboratory and written assignments, and the over-utilization of services and facilities constitute significant erosions in the standards of service. At a time when investments in human resources are so important, false economies practised in the university sector may well prove to be costly to our competitiveness and well-being in the future.

Excellent universities are counted among the crowning cultural achievements of the societies that sustain them. Now more than ever it is essential that we avoid the short-sightedness of viewing of universities as merely means to ends, their value being measured primarily by their immediate social utility. Reflecting upon this tendency towards instrumental thinking in higher education, President Derek C. Bok of Harvard recently noted:

> It is of the utmost importance, then, that universities preserve abundant opportunities, especially in the colleges and traditionally academic disciplines, for professors and students to engage in intellectual inquiry for its own sake. Even committed utilitarians should accept this view once they remember how much works of sheer intellect and scholarship can contribute over the long run. After all, in the perspective of centuries, it is not generals and presidents, nor the experts who advised them, but social critics, philosophers, and the purest of scientists who have left the most enduring mark on our civilization.[28]

A healthy democratic society depends upon its universities as wellsprings of the disciplined imagination, engaged social criticism, detachment, scepticism, abstraction and critical thinking. Universities communicate our culture, memory and conscience from one generation to the next. They are not just the training grounds for the more obviously and immediately useful applied talents. These multiple missions of the university strengthen one another and between them a dynamic balance, mutual respect and fertile discourse must be maintained, and this should be reflected in public policy.

In this memorandum the Ontario Council on University Affairs argues that the Government of Ontario not just provide income sufficient to maintain last year's level of service. Rather, Council also recommends that steps be taken to improve the quality of instructional services provided so that in the 1990's Ontario's students and employers receive from their universities the kind of service they once received, not in some far off golden age, but rather in the late seventies when in tough times Government priorities provided the funds to meet Council's recommendations for the universities.

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[28] The Chronicle of Higher Education, "Quotable" column, June 6, 1990, p. B4.

These targetted levels of service present, as Council recognizes, a significant challenge for the Government and the people of Ontario. Note, however, that a significant proportion of the cost of maintaining last year's level of service is taken up with counteracting inflationary effects. Secondly, a historical pattern of not doing so with base budget increases has brought us to the position that merely re-establishing levels of service which were once thought second best may stretch credulity. Nevertheless it is Council's duty to remind Government and citizens of the needs of the university sector upon which so much is demanded. Secondly to warn that dispassionate, objective judgment has brought us to the conclusion that a major effort is required to permit our universities to regain their competitiveness and impart necessary skills to their students. If Government cannot, or will not provide the means, it should not constrain the universities from obtaining them from other sources, namely tuition fees. Alternatively, Government may be forced to re-examine its accessibility policy for the years to come.

Dr. H.V. Nelles,
Chairman

June 15, 1990

Table 5

Summary of Grant Recommendations for 1991-92
($ millions)

2.1	Educational Renewal Program	105.8[1]
2.2	Enhanced Space Utilization	3.9[2]
2.3	Program to Renew Ontario's Educators	19.3[3]
3.0	Increase Research Overheads/Infrastructure Envelope	15.0
4.2	Maintenance of Basic Operating Support	1,819.0
4.3	Cyclical Renewal of Physical Plant	44.3
	Deferred Maintenance of Physical Plant	35.8
4.4	Incremental Costs of Bilingualism	2.0
Total Grants Recommended		2,045.1

Notes:

1. $105.8 million reflects one-third of the total annual cost of the $317.6 million Educational Renewal Program which is to be phased in over a period of three years.
2. $3.9 million represents one-third of the total cost of the 3-year $11.7 million Enhanced Space Utilization program.
3. $19.3 million includes the following funds recommended for 1991-92: $7 million to address educator renewal in the elementary and secondary schools; $0.4 million to address renewal in the CAATs; and $11.9 million to assist with renewal needs of the universities.

Appendix A

Revised Calculation of Shortfall in Funding for 1990-91

The estimate of the basic funding requirements for 1990-91 contained in Advisory Memorandum 89-VI has been revised to reflect updated estimates of CPI, furniture and equipment expenditures and 1989-90 base expenditures. The inflation factors for salary and non-salary items have been revised from 5.3% and 5.2% to 5.4% and 5.3% respectively. The furniture and equipment factor has been increased from $24.4 million to $28.3 million. The 1989-90 base expenditures have been increased from $2,078.2 million to $2,118.8 million. As a result, the revised estimate of the cost of basic funding objectives in 1990-91 is $2,281.7 million.

An estimate of total funds available to the Ontario university system has also been made reflecting information on government grants, fees, and other income. Council now estimates that total fee income (formula tuition and other fees) will be $447.2 million. Government operating grants supporting the cost of basic funding objectives will total $1,673.1 million; this total is the difference between the $1,822.8 million of total operating grants and the sum of $14.3 million in line item grants and $135.4 million in Accessibility Envelope Grants, Accessibility Phase-Out and Corridor Shift Funding. Other revenue is estimated to be $117.3 million ($103.0 million of which consists of universities' budget report values of other revenue, investment income and municipal and federal grants, and $14.3 million in line-item grants). Thus the total estimated revenue available to the system to meet the cost of basic funding objectives is $2,237.6 million.

The revised estimate of the shortfall in revenue compared to expenditures required to meet the basic funding objectives is $44.1 million ($2,281.7 - $2,237.6 million).

Council's estimate of total operating funding needs for 1990-91 is the revised estimate of the cost of basic funding objectives, $2,281.7 million and the additional $44.9 million recommended in Advisory Memorandum 89-VI. (University Educational Excellence Fund, $43.1 million plus Incremental Costs of Bilingualism $1.8 million) This equals $2,326.6 million.

The estimate of the total operating funds available for 1990-91 is the estimate of the funds available for the cost of basic funding objectives $2,237.6 million (the additional $18 million grant provided for 1989-90 is included in that amount).

Total operating funding needs minus total operating funds available reveal a shortfall of $ 89.0 million ($2,326.6 million - $2,237.6 million). Since Council uses a three-year rolling average calculation of shortfall for the base adjustment, the 1987-88 shortfall of $13.7 million must be subtracted. Therefore, Council estimates that the shortfall in total operating revenue for 1990-91 is $75.3 million ($89.0 million - $13.7 million).

Table A-1

Revised Operating Funding Shortfall for 1990-91
($ millions)

Council's Revised Recommendations		
Cost of Basic Funding Objectives (A)	2,281.7	
Additional Grants Recommended		
Incremental Costs of Bilingualism		1.8
University Educational Excellence Fund		43.1
Total Operating Needs (B)		2,326.6
Estimated Revenues Available		
Revenue Available for the Cost of Basic Funding Objectives (C)	2,237.6	
Additional $18 million is already included in (C)		0.0
Estimated Total Operating Revenue Available (D)		2,237.6
Shortfall in Funds Available		
Funds Available for the Cost of Basic Funding Objectives (A-C)	44.1	
Funds Available for Total Operating Needs (B-D) (E)		89.0
1987-88 Shortfall (F)		13.7
Calculation of Shortfall Using Three-year Rolling Average (E-F)		75.3

Appendix B

The 1990-91 Base

This Appendix outlines the derivation of the 1990-91 base used in Council's funding exercise. For the purpose of this exercise, Council assumes that system expenditures equal total revenues, and estimates total operating revenues at $2,237.6 million in 1990-91. Table B-1 provides details of 1990-91 revenues by type.

Formula and Non-Formula Grants

The figure $1,673.1 million for 1990-91 found in Table B-1 is derived by subtracting $14.3 million in Line-Item Grants and $135.4 million in Accessibility Envelope Grants, Accessibility Phase-Out and Corridor Shift Funding from the $1,804.8 million in Operating Grants for 1990-91 announced by the Minister,[1] plus the additional $18 million announced by the Treasurer.[2] This figure includes the grants provided as faculty renewal grants, international graduate student fee waiver grants, differentiation grants, Northern Ontario grants, bilingualism grants, institutional weight adjustment grants, program adjustment grants, research overhead/infrastructure grants, formula grants and the extraordinary grant. (Grant allocations recommended by Council can be found in Advisory Memorandum 90-II.)

Formula and Other Fees

In each year, Council's funding base includes only that fee revenue which is derived from formula fees and other fees. Any revenue accruing to the universities as a result of the application of their discretionary tuition fee power has been excluded from the base. The 1990-91 formula fee revenue is estimated to equal $411.9 million. This is calculated by applying the 1990-91 formula fee rates and enrolment changes to the 1989-90 fees. This figure also includes an estimate of the supplementary foreign fee revenue and third-term graduate formula fees. The Other Fee Revenue estimate of $103.0 million was based on the universities' budget reports for 1990-91.

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[1] Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H. V. Nelles, November 29, 1989.

[2] An additional $18.0 million was subsequently announced in the 1990 Ontario Budget document.

Other Revenue

Other revenue for 1990-91 of $117.3 million includes Ministry line-item grants of $14.3 million and an estimated $103.0 million in other sources of operating income including municipal and federal grants, investment income and other revenue. The $103.0 million was derived from the universities' reports on budgeted revenue for 1990-91. Other revenue excludes any amounts provided for municipal taxation payments, income from gifts, donations and non-government grants.

Table B-1

Estimated University System Revenue for 1990-91
($ millions)

Formula and Non-Formula Grants*	1,673.1
Formula Fees	411.9
Other Fees	35.3
Other Revenue**	117.3
Total	2,237.6

* Excludes Ministry line-item grants, Accessibility Envelope, Accessibility Phase-Out and Corridor Shift Funding.

** Includes Ministry line-item grants.

90-V Differentiation Between Honours and General Programs in Arts and Science

1.0 Introduction

This memorandum responds to the request of the Minister of Colleges and Universities for advice as to whether should there be a uniform system to differentiate honours and general students for enrolment reporting purposes.

2.0 Background

Most operating grants made available to universities are distributed through a formula which applies a weighting to enrolment data. The current weighting scheme, which was introduced in 1967, has remained in place essentially unchanged since that time. The structure of the weighting scheme was developed to approximate the program expenditure patterns of five well-established universities.

The part of the weighting scheme that applied to Arts and Science programs was based on the premise that such programs were organized into honours and general programs which were clearly differentiated. Quite often, honours programs in a discipline were offered with a totally different set of courses than general programs. The weights for Arts and Science programs were set down as follows:

GENERAL ARTS ALL YEARS	1.0
GENERAL SCIENCE ALL YEARS	1.0
FIRST YEAR HONOURS ARTS	1.0
FIRST YEAR HONOURS SCIENCE	1.0
UPPER YEAR HONOURS ARTS	1.5
UPPER YEAR HONOURS SCIENCE	2.0

A number of challenges emerged early in the history of the formula: the programmatic distinction between honours and general became blurred at most universities and one university abolished differentiation entirely. Thus means had to be found to accommodate undifferentiated enrolments within a weighted enrolment reporting system. The Arts and Science programs in some institutions were structured in such a way that students were informed at the beginning of their programs what the requirements for general and honours programs were and students alone had the responsibility to ensure that when their third years ended they had met the requirements for entrance into the fourth year of an honours program if they intended to continue. There was, therefore, no basis upon which to allocate second and third-year enrolment between honours and general programs. This challenge resulted in the following requirement being laid down in the ministry's operating grants formula manual in the late 1960s:

> All students in undifferentiated programs in Arts and Science not assigned a special weight (that is, a weight greater than 1.0) should be reported as if they were in the general course, except in the case of fourth year students, who are readily acknowledged as being in the honours category, and except for students in lower years who by virtue of academic standing, or other appropriate criteria embodied in university regulations, may reasonably be categorized as Honours students. Criteria for such differentiation, in so far as they affect the calculation of funding BIUs, are subject to approval by MCU.[1]

From documentation supplied to Council, it appears that two universities, Brock and Trent universities, received permission from either the Committee on University Affairs or the Ministry of Colleges and Universities late in the 1960s to base the differentiation between honours and general in the second and third years on the academic averages of students alone.

A third university, the University of Toronto abolished honours and general programs entirely. Three-year and four-year degree programs were substituted for them. These programs carried with them no requirement that a certain number of courses be completed in one or more subjects of concentration and no requirement that four-year degrees have a higher level of academic achievement than three-year degrees. The Committee on University Affairs approved the creation of a common weight for undergraduate enrolment in all years of study in this university based initially on the breakdown of enrolment between honours and general under the old system. A special methodology, based on degrees granted, was adopted in 1972-73 to revise the weight from time to time. One of the key elements of this methodology was the assumption that data on degrees granted was an effective proxy for what honours and general enrolment would have been had these programs been in place. This methodology has resulted in six upward revisions in the weight for that university in the years between 1972-73 and 1989-90. It is noteworthy that in the early 1980s, the university reestablished a linkage between majoring in a specific subject or subjects and the requirements for four-year degrees.

In its 1988 report on the inspection audit of Trent University, the Office of the Provincial Auditor said that it could not find evidence that the university had received ministry approval for the criteria it was using to report students for honours programs for operating grant purposes.[2] The ministry, however, responded to this report with evidence that permission to use a particular academic grade had, in fact, been granted to Trent in the early years of the formula. The ministry also retroactively granted approval for changes in the criteria which the institution had made in the early 1980s. The auditor's report went on to note that had the special weighting scheme based on degrees-granted used at the University of Toronto been applied to this institution, the resulting numbers of students reported as honours would have been appreciably lower.

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[1] Ontario Ministry of Colleges and Universities, The Ontario Operating Grants Distribution Manual, March, 1990, p. 51.

Subsequent to the release of the auditor's report, the Minister of Colleges and Universities asked Council to conduct a study of the differentiation between honours and general programs in Arts and Science. In an exchange of letters between the Minister of Colleges and Universities and the Chairman of Council, it was agreed that Council would undertake a study of the current policies and practices of the institutions in differentiating between honours and general undergraduate students and their practices in reporting such students for operating grant purposes. This study would answer the question whether there are serious differences in practice which might suggest serious inequities. In agreeing to this approach, however, the Minister specifically asked for advice "as to whether there should be a uniform system for designating, for reporting purposes, honours arts and science students."[3]

3.0 Council's Approach

After consultations with staff of the Council of Ontario Universities, the Ministry of Colleges and Universities and the institutions, a two-phase approach was adopted by Council. It was decided first to find the facts. Were there serious inter-institutional inconsistencies in reporting practices? If so, a second phase would be undertaken leading to recommendations for appropriate changes.

The first, fact-finding phase would answer the following questions: do differentiated honours and general programs still exist and what are the differences? How do institutions separate students between honours and general when they report them for operating grant purposes? Are institutions reasonably consistent in their reporting practices? Having identified the problem, Council would move on in the second phase to set down some principles and within those principles to flesh out options which could be "bench tested" for workability, and assessed as to appropriateness and institutional impact.

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[2] Office of the Provincial Auditor, 1988 Annual Report.

[3] Letter to Dr. Henry Nelles, Interim Chairman, from the Honourable Lyn McLeod, Minister of Colleges and Universities, February 15, 1989; letter to the Honourable Lyn McLeod from Dr. H.V. Nelles, Chairman, May 2, 1989; and letter to Dr. H.V. Nelles, Chairman, from the Honourable Lyn McLeod, May 29, 1989.

4.0 Phase One

The methodology and results of the first phase of the report are fully set out in the interim report of the project as are the limitations in the data.[4] This part of the memorandum will summarize the methodology and the results. The study asked universities how their undergraduate Arts and Science programs are organized. A questionnaire was prepared and administered by the staff of the Council of Ontario Universities. In addition to questions about the organization of undergraduate Arts and Science programs, the questionnaire asked the universities for the basis on which they differentiate between honours and general students when they reported enrolment for operating grant purposes. Enrolment data for the ten-year period 1979-80 through 1988-89 were drawn from the ministry's USIS\UAR system and were analyzed. Data were gathered from the universities on the degrees granted in the period 1984 through 1988.

The interim report concluded that universities generally do have four-year programs which involve specialization or concentration in one or two disciplines and three-year programs which place less emphasis on specialization in one or two subjects or disciplines. The hallmarks of the differentiation between honours and general programs are:

- honours or specialist programs require more credits and one-year's more work than do general or pass programs;
- honours or specialist programs require more courses in the subject or subjects of specialization than do general or pass programs;
- honours or specialist programs require a higher proportion of the students' total programs to be done in the subject of the major or concentration than do general or pass programs;
- honours or specialist programs require more courses to be done at a senior level than do general or pass courses and generally, a higher proportion of the students' total programs must be done at a senior level in honours programs than in general programs;
- while a few universities have structured their offerings so that separate courses are offered for general and honours students, the prevailing pattern is for there to be no difference between general and honour courses although some institutions limit access to fourth year courses to honours students;
- all but one institution has a higher academic standing for honours students than for general students although the institutions vary widely in terms of the point in the students' careers at which the requirement is imposed.

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[4] Ontario Council on University Affairs, Interim Report Study of the Differentiation between Honours and General Programs in Arts and Science, October 20, 1989.

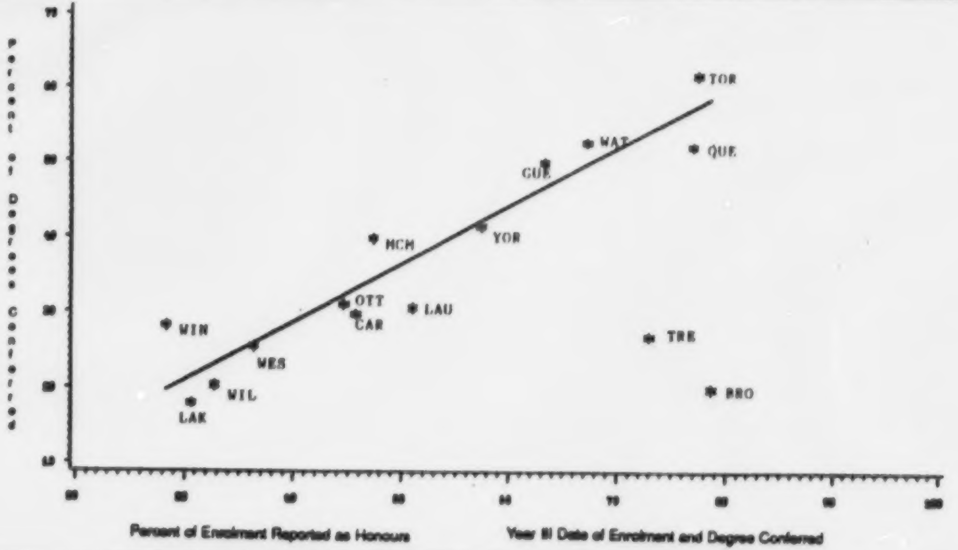
The study concluded that bearing in mind the differences in the institutional educational philosophies, particularly in the issue of breadth versus specialization, honours and general programs remain the prevailing way that Arts and Science programs are organized in Ontario universities. There are appreciable differences in each institution between the two types of program. There is common ground between institutions in the way they differentiate. The report went on to say that because one of the main ways the universities differentiate is on the basis of proportions of the work that must be done in the subject of concentration and in the seniority of such courses, there was support for the concept of higher costs for honours programs and therefore a differentiated weight structure. The departments that offer honours programs must offer more courses at a more senior level and presumably to smaller numbers of students in smaller classes than departments that do not offer specialist programs.

In the findings on how universities differentiate between honours and general programs in reporting enrolment for operating grant purposes, the report concluded that the majority of institutions apply a number of screens or tests in the process of separating students between these programs. It was noted, however, that two institutions, Brock and Trent used only the average marks of students to differentiate. This practice gave rise to concern about inter-institutional fairness.

The enrolment data presented in the report indicate that there are and always have been considerable differences between institutions in the proportions of students reported as honours. The report makes a number of observations arising from the data. One observation, indicated in Tables 1 and 2, is that over a ten-year period the percentages of enrolment reported as honours has fluctuated, with the peaks often occurring in the early years. Perhaps the most useful finding from the point of view of establishing whether there is a problem and the dimensions of that problem, is contained in the regression analysis showing the relationship between each institution's proportion of enrolment reported as honours and the proportion of the degrees conferred that were honours degrees. Figure 1 illustrates the relationship between the proportion of third year enrolment reported as honours and the percentage of degrees conferred that were honours degrees. The figure points to great differences between universities in the proportion of enrolment that they have reported as honours as well as the proportion of their graduates that were honours graduates. As we noted above, this has always been the case. There are great differences in the mix of programs and students between universities. These differences can have a great impact on the proportions. For example, the relative proportions of Arts and Science students who pursue honours programs are as the interim report indicates, very different. It follows, therefore, that differences in the mix of Arts and Science students between institutions will influence the outcome. In a system in which fifteen universities set independent academic policies there will inevitably be significant differences in the numbers retained and promoted in programs. This characteristic is common to all programs funded through the formula

Figure 1

Relationship between the Percentage of Year III Enrolment Reported as Honours and the Percentage of Each University's Degrees Conferred that were Honours Degree



Notes:
Degrees conferred = % of Degrees conferred that were Honours degrees in the period 1984 - 1988. Enrolment = % of Full-time fall-term enrolment in year III in the period 1983/84 - 1987/88 reported as honours. University of Toronto data are estimates as outlined in Appendix E of the interim report.

Regression Line: Indicates the relationship between the two variables when the two "outlying" universities have been removed. R-squared excluding outlying universities = 0.893 and R-squared including outlying universities = 0.342.

Table 1

Percentage of Full-Time Fall Term Enrolment Reported as Honours in Year II 1979/80 - 1988/89

Institution	10-Year Average*		Range
Brock	66.9	(67.5)	60.9 (1986/87) - 71.6 (1984/85)
Carleton	44.4	(44.7)	42.2 (1987/88) - 47.1 (1979/80)
Guelph	68.0	(68.1)	65.1 (1986/87) - 72.8 (1981/82)
Lakehead	31.0	(31.8)	26.3 (1987/88) - 40.0 (1979/80)
Laurentian	50.8	(46.9)	29.5 (1979/80) - 62.7 (1988/89)
McMaster	45.7	(45.8)	41.7 (1988/89) - 48.9 (1984/85)
Ottawa	42.6	(43.0)	36.9 (1985/86) - 50.2 (1980/81)
Queen's	83.3	(83.2)	73.9 (1981/82) - 87.9 (1987/88)
Trent	59.8	(58.2)	37.8 (1981/82) - 70.8 (1988/89)
Waterloo	69.0	(69.0)	57.0 (1981/82) - 78.7 (1988/89)
Western	35.8	(36.2)	31.4 (1988/89) - 41.7 (1982/83)
Wilfrid Laurier	46.7	(46.3)	39.7 (1979/80) - 51.0 (1988/89)
Windsor	26.3	(28.4)	18.8 (1986/87) - 43.9 (1979/80)
York	55.2	(55.9)	51.6 (1984/85) - 61.7 (1980/81)
All 14 Universities	52.7	(52.8)	51.6 (1987/88) - 54.4 (1980/81)

* Numbers in parentheses in this column indicate the mean of the 10-year averages. This number has been provided to correct for the weighting effects brought about by year-to-year fluctuations in enrolment.

Table 2

Percentage of Full-Time Fall Term Enrolment Reported
as Honours in Year III 1979/80 - 1988/89

Institution	10-Year Average*		Range
Brock	79.5	(80.3)	76.6 (1987/88) - 89.6 (1980/81)
Carleton	47.3	(48.3)	43.4 (1987/88) - 52.8 (1981/82)
Guelph	64.9	(65.0)	61.0 (1983/84) - 71.8 (1981/82)
Lakehead	33.8	(34.4)	29.0 (1984/85) - 44.9 (1979/80)
Laurentian	48.7	(47.1)	31.9 (1979/80) - 54.4 (1987/88)
McMaster	45.5	(45.4)	40.5 (1982/83) - 48.6 (1986/87)
Ottawa	47.1	(47.7)	41.0 (1984/85) - 55.3 (1982/83)
Queen's	75.0	(74.6)	67.4 (1980/81) - 82.7 (1987/88)
Trent	68.7	(67.9)	53.6 (1980/81) - 75.9 (1985/86)
Waterloo	61.1	(61.0)	44.8 (1979/80) - 73.8 (1987/88)
Western	36.9	(37.1)	35.6 (1988/89) - 39.8 (1982/83)
Wilfrid Laurier	31.9	(31.8)	29.2 (1988/89) - 34.3 (1982/83)
Windsor	30.1	(31.8)	19.5 (1988/89) - 41.7 (1982/83)
York	59.2	(60.2)	56.5 (1986/87) - 68.2 (1980/81)
All 14 Universities	52.4	(52.4)	50.4 (1979/80) - 53.2 (1981/82)

* Numbers in parentheses in this column indicate the mean of the yearly averages. This number has been provided to correct for the weighting effects brought about by year-to-year fluctuations in enrolment.

not just Arts and Science. This policy of respecting the academic autonomy of institutions, however, is at the heart of the formula.

Perhaps the most striking finding suggested by Figure 1 is, however, that the correlation between the proportions of students reported as honours and the proportion of honours degrees conferred is strong for thirteen of the fifteen universities. This suggests that for the great majority of institutions there can be considerable confidence that the numbers reported as honours are generally in keeping with the academic policies of the institutions as reflected in the degrees conferred by that institution. In two universities, however, this relationship does not hold. As noted earlier, in the universities identified as "outliers" only one filter is used to differentiate students, namely their academic performance.

The report concluded that although there is not a serious sector-wide problem, it was important that the outlier problem be addressed. Because there is a need for inter-institutional fairness in reporting practices, it is important to ensure some continued general inter-institutional consistency in reporting practices.

The interim report was circulated for comment from the institutions and the ministry. While not everyone took up the opportunity to comment, the respondents did not disagree with the findings in general. Two institutions felt that strong measures going beyond reporting requirements needed to be taken, while most were more inclined to believe that the outlier problem alone needed to be dealt with through tightened reporting requirements.

5.0 Phase Two

Council's objective for the second phase of the project was to develop a methodology and/or guidelines to ensure fair and consistent reporting practices to differentiate honours and general enrolment in arts and science for operating grant purposes.[5] The modus operandi for this phase of the report was to set out principles and options for consultations with the institutions. Following consultations with staff of the Council of Ontario Universities and the Ministry of Colleges and Universities, Council staff set out a draft statement of principles, constraints and options for purposes of consultations with the institutions.[6]

The stated objective of the second phase of this project was the development of fair and consistent reporting practices. With the launch of the second phase, however, the door was opened to permit the consideration of options which went well beyond reporting practices, including changing the weight structure. In the consultations with the institutions, it became apparent that there were three possible basic approaches to reform. Two approaches were based on the underlying premise that there was a difference between honours and general programs and that the underlying weighting structure should continue. The third approach is based on abolishing altogether the use of honours and general categories and substituting a new weighting scheme based on year of study.

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[5] Letter to the Executive Heads of the Universities from the Chairman of the Council, November 28, 1989.

[6] Letter to the Executive Heads of the Universities from the Chairman of the Council, January 22, 1990.

5.1 Option One: Tightened Reporting Guidelines

In this option, it is noted that some institutions do not refer to the students' own declarations of program and degree sought in assigning them to honours or general programs. In the vast majority of institutions, the students' registration documents which the students see and have an opportunity to revise provide prima facie justification for the assignment of students to an honours or general programs. The data in the first phase of the report suggest that this difference in practice produces an anomalous outcome, namely proportions of students reported as honours that are dramatically out of keeping with the actual output of graduates. The process would be fairer if all institutions used the students' own declarations of the programs they are pursuing to support their reporting students as honours or general. These declarations would, of course, not be the sole basis for differentiation. The institutions should, as most do, test these declarations against their own academic policies and procedures to make sure that the students' courses completed and currently registered in, and their academic records support the reasonableness of their claims. The institutions should be held accountable for their application of these tests through the audit of enrolment. The specific requirements under this option would be as follows:

- In order to report a student's enrolment in the upper years honours category, the student's registration document for that term must contain a statement which the student of his or her own volition has made to the effect that he or she is pursuing a four-year, honours or specialist degree in a specified discipline or disciplines. The student must have signed the document. If there is no such statement on the registration document, a special declaration must be obtained from each student which the university proposes to report in the upper years honours category. (In the case of universities with remote, telephone registration procedures in which no signature was obtained, special procedures would need to be developed to assure the institution's auditors that the student had independently made this statement or declaration of his or her own program.) Suggestions to promote the fairness of these declarations are outlined in Appendix A.

- Each university must attest to the reasonableness of the students' claims that they are pursuing four-year honours or specialist programs in stated disciplines. This attestation would be based on the academic policies of that university. An attestation procedure would be developed by each university. The university would be held accountable for carrying out this test as part of the audit of enrolment required under the Operating Funds Distribution Manual of the Ministry of Colleges and Universities. Each university's attestation procedure would be developed independently of the other universities and would be based on its own academic policies, but it must contain at least the following elements:

- The student must have successfully completed the university's First Year requirements and its requirements for entry into an honours program. In the case of universities on credit systems, this would normally mean that a student must have successfully completed at least four full courses or eight half courses before he or she may be reported in the upper years honours category.

- The procedure must assess whether the student had met or could reasonably be expected to meet the university's requirements for a specialist or honours degree in the specified discipline or disciplines given the courses enrolled in and the work completed to date. This examination of the students' records must include the courses completed and registered in the subject of specialization; the seniority of the courses of the subject(s) of specialization completed or registered in; and the academic record of the students, all in relation to the university's own academic requirements.

- The attestation procedure must also verify whether the student had obtained all necessary approvals from the appropriate authorities in the university.

A detailed description of the attestation procedure must be kept on file in the university for use in auditing the university's enrolment by its own external auditor. A copy of this test must be submitted to the Ministry of Colleges and Universities for information purposes and a summary of it circulated to the other universities for their information.

5.2 Option Two: Institution-Specific Weights for All Years of Study Based on Institutional Histories of Proportions of Honours and General Degrees Granted

The interim report indicated a reasonably strong correlation between degrees granted and reported enrolment. It follows that a system of generating institution-specific weights from degrees-granted data might produce a reasonably objective result. The methodology would be to generate a history of how the degrees granted by that institution were distributed between the following categories: general degrees; honours arts degrees; and honours science degrees. The institution's Arts and

Science enrolment would be divided between these three categories in the same proportion as the degrees granted and multiplied by the applicable weight (i.e., 1.0 for general arts and science; 1.5 for honours arts; and 2.0 for honours science) to calculate the number of BIUs. The BIUs would then be divided by the enrolment to generate a weight for the institution. This weight would be used by the institution to generate its BIUs until the next system-wide review of institutional weights based on more recent degrees-granted data was undertaken.

5.3 Option Three: Establish a System of Weights Based on Year of Study and thereby Eliminate the Distinction between Honours and General Programs Altogether

A system of weights based on year of study, originally recommended by Bladen [7], would eliminate the need altogether to differentiate between honours and general programs. There are many ways to approach this option:

- base it on one combined arts and science weight for each year of study using the current system averages;

- base it on separate arts and science weights for each year of study using current system averages; or

- base it on weight one for first year, and a combined arts and science weight (or separate arts and science weights) for the three upper years combined using current system averages;

- base it on an arbitrarily established set of weights with a long phase in period for adjustments.

There are many other variants. There are similarly a number of different ways to define each year of study and to assign students to years of study:

- set an arbitrary number of credits for each year of study regardless of institutional practice;

- use each institution's definition of each year of study;

- base a student's assignment to year of study on the number of credits previously reported for that student; or

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[7] Bladen, V.W. et al., Financing Higher Education in Canada. Toronto: University of Toronto Press, 1965.

- base a student's assignment to year of study on the number of credits successfully completed.

6.0 Principles

In assessing these options, Council identified a number of principles to guide its decisions. In this regard, it gave careful attention to the discussions with the various bodies consulted. The following principles were adopted:

- Because honours and general programs still exist and because the study has shown a number of reasonably common distinguishing characteristics for each type of program, the current, separate weighting structure for honours and general programs should continue;
- Institutions should continue to have autonomy in setting their academic policies including determining what the specific requirements should be for an honours or general program;
- The specific criteria used to separate students between honours and general programs for enrolment reporting purposes should be objective and public and, while not identical in every detail, should be very much alike.

The effect of adopting these principles was to eliminate the third option. While this option would have removed the need to differentiate between honours and general and appeared to be more objective on the face of it, it became apparent that it would have required a major redistribution of resources within the system. Even if current system average weights were used in establishing the weights for each year of study, the redistribution would be from institutions with traditionally high proportions of students reported as honours to institutions with low, with no evident rationale compelling such a massive redistribution. There was, moreover, no apparent rational basis for establishing a set of weights other than weights based on system averages. A set of weights that was set arbitrarily would beg the question as to what policy objective was being served by the resulting very large redistribution. A rationally established set of weights based on year of study would have required a thoroughgoing cost study. There was as well considerable inter-institutional concern about the administrative burden of the assignments to year of study.

Council concluded that the results of the first phase of the study did not justify such a major overhaul of the weighting system and a detailed cost study. The weighting system of one part of the formula should not be looked at in isolation from the weighting systems of the other parts of the formula. The cost study would have to cover the entire formula. Council agrees, however, that in the event of a future, thoroughgoing review of the weighting system of the formula, this approach should be given very careful consideration.

7.0 Recommendations

Council was left with two options to choose from, the option which tightened reporting requirements and the option which would bring about the generation of institution-specific weights based on institutional patterns of degrees granted. The choice between these two options was guided by a number of important considerations:

- First, the problem was not serious for the whole system but was basically focused on two universities with reporting criteria that were out of line with the other universities;

- Secondly, consultations with institutions had indicated some dissatisfaction with a system that would have to be totally reviewed and overhauled periodically;

- Thirdly, there was some concern that a highly visible system of institution-specific weights would bring about inter-institutional competition to change academic requirements to bring about an increase in the weights;

- Finally, as the data in Figure 1 indicate, although there is a strong correlation between the proportions of students reported as honours and the proportion of honours degrees conferred, there is not uniformity; even institutions like Wilfrid Laurier which has a very traditional type of honours program with a relatively low proportion of enrolment reported as honours does not have a perfect matching of proportions and would have to sustain a negative adjustment in the event that a system based on degrees granted were used. As the interim report indicates, there are many possible reasons to explain some modest or even moderate differences between proportions of degrees granted and proportions of students enrolling in honours programs.

The data collected in the first phase indicated that the option based on institution-specific weights would entail some redistribution for most institutions. Council asked institutions about how the first option would affect them. Two institutions indicated relatively modest negative adjustments. The University of Toronto indicated some initial negative adjustments until the approach was fully phased in when the impact would become neutral. Nine institutions indicated no appreciable adjustment. One institution did not reply. For Brock and Trent Universities, however, it proved to be impossible to estimate the impact of basing enrolment reporting on student declarations. These institutions did, however, fear that they may face very severe negative adjustments. Data from the first phase of the study indicate that Brock and Trent would sustain massive negative adjustments of up to 10% of their Arts and Science BIUs in the event that an approach based on degrees-granted were used.

Council has chosen the first option. This option will be effective. It will ensure that there is a common approach to differentiating enrolment between honours and general programs. The remedy addresses the primary problem of some inconsistency in reporting practices. It will be on the whole relatively easy to administer; registration procedures will need only minor modifications in most universities and the changes at Brock and Trent Universities will not force them to abandon their academic policies although it will require some additional administrative procedures. For the system as a whole, the remedy will have few side-effects; and it will not involve a large-scale redistribution of resources. Moreover, the remedy can be phased in to minimize its redistributive effect.

Council was cognizant of the evidence it had received from Brock and Trent Universities that they had received authority for their reporting practices which had been in place for many years. It was also cognizant of the fact that the approval they had been given was based on the fact that their academic policies made it difficult to differentiate students. Council feels strongly, however, that the rules regarding enrolment reporting need to be tightened.

Accordingly, Council *recommends to the Minister:*

OCUA 90-28
NEW REPORTING REQUIREMENTS FOR DIFFERENTIATING BETWEEN HONOURS AND GENERAL PROGRAMS

THAT new reporting requirements for Arts and Science programs as outlined as option one in this memorandum be introduced for all universities.

It is important that universities have sufficient opportunity to make the necessary administrative changes resulting from this recommendation. Moreover, because Brock and Trent and other institutions affected by this recommendation had been operating under approved criteria, it is appropriate that the impact of these changed reporting requirements be phased in gradually to permit them to make the necessary adjustments. Council, therefore, believes that given the potential severity of the impact on two institutions, the effect of the new reporting requirements should be phased in over a minimum of 5 years.

Accordingly, Council *recommends to the Minister:*

OCUA 90-29
IMPLEMENTATION PERIOD FOR NEW REPORTING

REQUIREMENTS FOR DIFFERENTIATING BETWEEN HONOURS AND GENERAL PROGRAMS

> *THAT* the new reporting guidelines be made effective in the year 1991-92;
>
> and
>
> *THAT* the effect of the new enrolment reporting guidelines be phased in over a minimum five-year period so that a university's BIU counts in 1991-92 be based one-fifth on the enrolment reported under the new reporting requirements and four-fifths under the old requirements and so forth until 1995-96 when all BIU counts would be based on enrolment counted under the new guidelines;
>
> and
>
> *THAT* after the first year's data on the effect of the new approach to counting has been received, the ministry should lengthen the implementation period, if necessary, so that no institution would sustain a one-year negative adjustment greater than 1.0% of its total Arts and Science BIUs.

8.0 Monitoring

At the outset of this study, Council was concerned that issues of this kind should arise through inspection audits of the provincial auditor. Moreover, in the course of conducting this study Council noted a number of reporting problems such as a number of inter-institutional inconsistencies in the disciplines and programs that were included under various weight categories and institutional doubts about the accuracy of their own data contained in those parts of the USIS/UAR system of the Ministry of Colleges and Universities that are not audited. These concerns are set out in the preliminary report. Council is certainly not questioning the auditor's right to conduct inspection audits, but it believes that the system itself should periodically re-examine its own enrolment data to satisfy itself of the fairness and comparability of the enrolment data used and not wait for third party review. The formula has for many years been a distribution mechanism. It is important that all institutions have confidence that there is a reasonable degree of inter-institutional consistency in enrolment reporting and that issues like the honours and general issue are addressed by the system and its supporting audit of enrolment.

The reporting measures for honours and general programs recommended by Council include more openness. The universities would be required to circulate descriptions of the tests they use of these declarations to the other universities. But Council believes that such important indicators as the proportions of enrolment reported as honours should be monitored; that there should be as much inter-institutional consistency in enrolment reported as possible; that data on significant enrolment patterns affecting the formula should be shared with all institutions; and that any departures from established patterns should be examined and hopefully satisfactorily explained. Council believes that such a system need not be onerous or cumbersome to be effective. In some instances it will rely on self examination and voluntary compliance. In other cases, the established network of enrolment auditing may be turned to for periodic special audits of selected aspects of enrolment reported to the ministry.

Accordingly, Council *recommends to the Minister:*

OCUA 90-30
MONITORING OF ENROLMENT REPORTING

THAT the Ministry of Colleges and Universities initiate the development of a system of monitoring enrolment reporting and major trends in enrolment reporting such as the proportions of students reported as honours and the disciplines being reported under the various program categories in the interests of ensuring that the data in the USIS\UAR systems are comparable and that significant trends in enrolment patterns are examined and explained. This system should be developed on a tripartite basis involving Council, the ministry, the institutions and this council.

These recommendations respect institutional autonomy, but, of course, they depend upon institutions continuing to act in good faith. The intention is gradually to bring the practices of the outlying institutions into conformity with those prevailing in other institutions so that there will be greater system-wide correlation between enrolment reported as honours and honours degrees conferred across the system. If this recommended approach does not produce this result, or if the recommended monitoring indicates other deviations in the currently strong association between enrolment reported as honours and degrees conferred, Council will necessarily have to revisit the issue and consider more prescriptive measures.

Dr. H.V. Nelles,
Chairman

August 7, 1990

Appendix A

Suggested Guidelines Governing Student Program Declarations

In the matter of the students' declarations of whether they are in four-year specialist or honours programs or in three-year general programs, it is important that the student registration and declaration forms possess several characteristics.

First, the questions should be direct and clear. Vague questions like, do you wish to be considered an honours or specialist student or is it possible that you might wish to graduate with a four-year degree program are obviously not adequate. The question should be direct and yield specific answers indicating what the **student's current** academic plan is, such as: Are you currently pursuing a three-year degree program or a specialist program leading to a four-year degree? It is, of course, acceptable to make it clear that the student may change his or her mind and plans within the regulations of the institution at a later date, but what is sought is the current plan.

Second, students completing first year programs and embarking on their second year should not be lead by such devices as pre-printed responses. This is the point in the students' careers at which they normally begin to specialize and such leading would be clearly inappropriate. It would, of course, be reasonable to preprint the students' previous declarations on their forms for subsequent terms, but even in these cases, the students should be specifically required to confirm the continued currency and accuracy of the preprinted information.

Third, the student must enter the name of the subject or joint subjects of specialization with the name of the subject (or joint subjects) of specialization that is being pursued.

Students should only be categorized honours/specialist students if their answers indicated that they are pursing a specialized or honours program leading to a four-year degree, if they state the subject or subject(s) of specialization, and if institution's test of the students' declarations substantiate the reasonableness of the students' claims.

90-VII Extraordinary Grant for Algoma College 1990-91

1.0 Introduction

For several years Council has been examining, at the request of the Minister of Colleges and Universities, the affairs of Algoma College with a view to restoring it to financial health and establishing a long-term viable plan for the institution. In Advisory Memorandum 88-VIII Council recommended a mission for Algoma College, proposed appropriate academic programs to carry-out those responsibilities, established conditions for an extraordinary grant-in-aid, and set forth procedures for the elimination of the accumulated deficit within three years.[1] Council's advice, which was fully accepted by the Minister, acknowledged that a small scale institution pursuing such a mission might not be able under the operating grants formula to generate the income required to meet its minimum expenditures. Once Algoma indicated its acceptance of the Minister's mission statement and recovery program, and once financial supervision by Laurentian University had begun, Council undertook to revisit the question of what size of grant might be required on an ongoing basis to compensate for this "structural deficit."

During the past year Algoma College has accepted the terms under which the Minister advanced extraordinary funding and has embarked upon a concentrated effort to both carry out its mission and realize necessary economies. Council has received assurances from the Financial Supervisor at Laurentian University that current costs are being brought under control and a realistic deficit elimination plan is in place. During the recent process of Corridor Negotiations, Algoma College was authorized to undertake a significant increase in enrolment which should contribute greatly to the realization of both its academic and financial plan. Greatly encouraged by these developments and the constructive manner in which the College has been working with Laurentian to achieve the objectives outlined in Advisory Memorandum 88-VIII, and reassured by the Board of Governors of the College that deficit elimination is its highest priority, Council is now prepared to offer advice on an extraordinary grant for 1990-91 and the next two years which will redress the deficit resulting from small scale and program mix.

In Advisory Memorandum 88-VIII, Council recommended that Algoma's supplementary grant be calculated on the basis of the fixed cost of present operations. Recognizing the problems Algoma has experienced under the operating grants formula, Council recommended that a discretionary, extraordinary funding grant of $760,000 be provided to Algoma College for its 1989-90 funding year. In turn, Algoma was expected to reduce the gap between revenues and expenditures, through course consolidation, productivity improvements, increased control over overhead expenditures, and enrolment growth. Council's recommendation of an extraordinary funding grant of $760,000 for 1989-90 was based upon a rough estimate of the likely structural imbalance between maximum revenues and minimum expenditures. At that time Council pointed out that any future extra-formula grants would depend on the findings of the 1990 Cost Study Review which would closely examine Algoma's financial viability under the Advisory Memorandum 88-VIII recommendations. Specifically, the study was to be a "precursor to the continuance of the Extraordinary Funding grant."[2]

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[1] Ontario Council on University Affairs, Advisory Memorandum 88-VIII, Fifteenth Annual Report "Mission, Programs, and Funding for Algoma College", pp. 107 - 128.

During the 1989-90 Corridor Negotiations, Council recognized the need to increase the College's intake capacity to grow to a more viable size. Therefore, in Advisory Memorandum 90-I, 150 BIUs were added to Algoma's allocation in an effort "to enable the College to continue to grow towards financial viability".[3] It was Council's belief that with such growth, the size of the College's extraordinary grant would eventually be reduced.

As in the case of the Trent Differentiation grant, Council had to choose between developing a determining or a confirming methodology. That is to say, Council could generate a mechanism which would determine the specific grant which would vary from year to year as enrolment and other factors changed. Alternatively, Council could develop a methodology which would produce a figure as a test of the adequacy of the existing grant level. As in the Differentiation Grant envelope, Council chose the latter course. Through a close comparative analysis of the influence of small scale upon Algoma College's administrative and instructional costs this Memorandum will determine how closely the extraordinary grant approximates Algoma College's structural deficit.

Having made the choice of a confirming methodology, Council also decided to maintain the resulting grant level over the three years 1990-91, 1991-92, and 1992-93. Council concluded that a recommendation of a fixed sum over three years would assist the institution in achieving its mandated responsibilities by providing a solid financial basis for planning. It is Council's belief that a combination of formula grants, enhanced by an already existing Northern grant, and the provision of the three-year extraordinary grant will allow Algoma the opportunity to eliminate the College's accumulated deficit while providing a secure framework for fiscal planning.

2.0 The Review Process

In a letter dated August 15, 1989 the Chairman of Council formally notified Algoma of the conditions that were to be met for the continuation of 1989-90 and future extraordinary grant funding. Most notably, it was stated that before commencing the cost study a copy of the institution's financial plan for deficit reduction and eventual elimination by the year 1992-93 was to be received by Council. On July 23, 1990 Council received such a plan, reviewed it, and following discussion with the Financial Supervisor, accepted it. A methodology for determining extraordinary costs was then forwarded by Council to Algoma on October 24, 1990

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2. Letter from Dr. H.V. Nelles, to Dr. Doug Lawson, President, Algoma College, August 15, 1989.

3. Ontario Council on University Affairs, Advisory Memorandum 90-I, "Revisions to Universities Formula Grants Envelope Corridor Mid-Points as a Result of the 1989-90 Corridor Negotiations", p.56.

for comments. On November 2, 1990 Council received a submission from Algoma and subsequently met with the President of Algoma to discuss the proposed methodology and resulting funding levels.

3.0 Methodology and Results

Small-scale institutions can experience extraordinary costs relative to larger institutions in two areas: instruction and administration. Higher instructional costs per student result because class sizes tend to be smaller, whereas administrative costs per student are higher as a result of the combined presence of a small student population and the necessity to provide a base level of administrative service. These costs can be estimated through the application of algebraic formulae specified in Appendix A. However, in the case of Algoma, additional funds are already received yearly through the Northern grants envelope to provide compensation for particular scale-related deficiencies. Therefore, it became necessary for Council to net-out these allocated funds in order to avoid double-counting.

The addition of the instructional and administrative extraordinary costs gives an estimated total incremental cost that Algoma College incurs due to its structural deficit that is not recognized under regular sources of funding. Table 1 indicates total extraordinary costs in the order of $710,000. Council has not been convinced that there are scale-related expenses associated with the operation of an academic library (see Appendix A). However, Council accepts that there may be additional costs not captured by the methodology employed. Taking these unknowns into account, the structural deficit of Algoma College may exceed by a small degree the $710,000 indicated by the methodology. That being the case, Council concluded that the current grant level of $760,000, though higher than the precise calculation, probably provided adequate coverage of the structural operating deficit. Taken together, the methodology and this prudential margin, confirm that the original $760,000 closely approximates Algoma College's extraordinary scale-related costs. Accordingly, Council recommends that the current level of funding, $760,000, continue in the 1990-91 funding year.

The College has undertaken to eliminate its deficit over a three year period. Council believes that it would be helpful for Algoma in its planning process to know the size of its grant in each of these years. Under the methodology outlined by Council in this Advisory Memorandum, as economies of scale are realized through planned enrolment growth, the size of extraordinary grant entitlement would be reduced. On the other hand, inflationary pressure might be expected to counter this trend. Therefore, Council recommends that extraordinary grants amounts be held constant at $760,000 for the 1990-91, 1991-92, and 1992-93 funding years.

Accordingly, Council *recommends to the Minister:*

OCUA 90-38
1990-91 ALGOMA COLLEGE EXTRAORDINARY FUNDING

THAT an extraordinary grant of $760,000 be allocated to Algoma College for the 1990-91 funding year.

4.0 Conclusion

Council appreciates the cooperation of Algoma College during the consultation process and hopes that, secure in the knowledge of these grant amounts, during the next three years, Algoma College will successfully implement the deficit elimination strategy presented to Council upon which this advice is premised. Council has received the assurance of the President and the Board, that should enrolment targets not be achieved, the College nevertheless commits itself to the elimination of its accumulated deficit. At the end of the second year, in the summer of 1992, the size of the extraordinary grant and the methodology used to confirm it should be revisited to determine ongoing funding needs beyond 1992-93.

Dr. H.V. Nelles,
Chairman

November 15, 1990

Table 1

Estimated Extraordinary Costs at Algoma College: 1990-91

Extraordinary Instructional Costs:	
Gross Extraordinary Instructional Costs	$657,000
LESS Northern Grant Estimate	$262,000
Net Extraordinary Instructional Costs	$395,000
Extraordinary Administrative Costs:	
Gross Extraordinary Administrative Costs	$381,000
LESS Northern Grant Estimate	$ 66,000
Net Extraordinary Administrative Costs	$315,000
Total Extraordinary Costs:	**$710,000**

Appendix A

Methodology Used to Assess the Size of the Extraordinary Grant Required

In the past, Council has recommended that specific institutions receive extra-formula grants annually to reflect special institutional circumstances which result in incremental or extra-ordinary costs being incurred beyond those which can normally be accounted for through the operating grants formula. These include Differentiation, Northern Ontario, and Bilingual grants. The Trent Differentiation grant and Northern Ontario grants methodologies both recognize the presence of certain scale-related extraordinary costs or conditions which make it necessary to consider the provision of supplementary funds.[4] The methodologies used attempt to isolate these factors and attach a reasonable dollar amount to them.

In the cases of the Northern grants and the Trent Differentiation grant, methodologies were devised to confirm the appropriateness of existing grant levels. As confirmatory exercises, the ongoing grant level amounts were not based on the cost study methodologies. Similarly, the Algoma cost study has been undertaken to review extraordinary costs at Algoma focusing on a continuing imbalance between expenditures and normal sources of income. Council believes that like these other supplementary grants, the methodology and generated figures should be considered confirmatory of the current grant level rather than determining a precise level of annual grant.

Algoma already receives extra-formula funds related to scale. In Advisory Memorandum 90-II, Council reaffirmed that Algoma should continue to receive a yearly amount of 12% of its Base BOI in recognition of incremental costs incurred for operating "in the North". For the 1990-91 funding year, Algoma received "in the North" Northern grants totalling $328,000 of which approximately 80% was in recognition of small class size conditions. Any calculation of scale-related costs will necessarily need to net-out those costs already covered by the Northern Ontario grant.

Three cost areas warranting supplementary grant consideration have been reviewed: instructional costs, administrative costs, and library costs. The differing nature of the three identified expenses necessitated the construction of three separate costing methodologies. The objective was to look at the relative costs of Algoma in relation to those incurred by other institutions for similar activities. By the very fact that the objective of the study was to identify extraordinary costs it was not an exercise in identifying absolute costs. The basic premise of the analysis was that by using formulaic models, a reasonable approximation of each incremental expense would be arrived at.

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[4] Ontario Council on University Affairs, Fifteenth Annual Report: 1988-89, Advisory Memorandum 88-VIII, "Mission, Programs, and Funding for Algoma College", pp. 107-128. Ontario Council on University Affairs, Fifteenth Annual Report: 1988-89, Advisory Memorandum 88-III, " Northern Ontario Grants Review", pp. 53-65.

A. Instructional Costs

In Advisory Memorandum 88-III, "Northern Ontario Grants Review", Council stated that small class size is a condition for the Northern universities which stems from their mandate to offer "a reasonable range of courses to a large geographic region with a low population density."[5] Moreover, it was recognized that these conditions result in greater instructional costs per student. Like the Northern Grant calculation, estimating the incremental costs associated with a low student per program ratio is the focus of the instructional cost methodology.

To estimate the instructional costs for Algoma, Council has chosen a modified Northern Grants approach as described in Advisory Memorandum 88-III.[6] Most notably, the Northern Grants formula provides a means by which to measure the higher costs associated with smaller class sizes. Laurentian and Lakehead figures were used in the Northern Grant methodology to confirm the level of the Northern grants. In the case of Lakehead and Laurentian, the average program size was estimated at 129 FTE students per program. This ratio was then compared with the "edge of system" or "threshold" ratio. The "threshold" numerically identifies the assumed minimum viable size of enrolment required to support a program. Using the three universities displaying the lowest ratio for institutions not receiving extra-formula support (Brock, Wilfrid Laurier, and Windsor) for a six year period, Council concluded that 180 students per program was an appropriate threshold.

$$GC_a = \overbrace{1 - \left(\frac{PR_a}{PR_t} \right)}^{A} \quad X \quad \overbrace{\frac{I_s}{OC_s} * \frac{FS_s}{OC_s}}^{B} \quad X \quad \overbrace{BOI_a * \frac{UBIU_a}{TBIU_a}}^{C}$$

where:

GC_a = Gross Extraordinary instructional costs for Algoma
PR_a = Ratio of FTE enrolment per program for Algoma
PR_t = Threshold ratio of FTE enrolment per program for the edge of the system
FS_s = Faculty Salaries for the system
OC_s = Operating Costs for the system
I_s = Instructional Activity for the system
$UBIU_a$ = Undergraduate BIUs for Algoma
$TBIU_a$ = Total BIUs for Algoma
BOI_a = Basic Operating Income for Algoma

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[5] Ontario Council on University Affairs, Fifteenth Annual Report: 1988-89, Advisory Memorandum 88-III, "Northern Ontario Grants Review", p. 55.

[6] "The students per program ratio approach" was selected as the methodology for the Northern Grants calculation. It basically involves three steps: a)calculating the average number of students per program for Lakehead and Laurentian over the past several years in order to determine a typical northern ratio; b) examining similar institutions during the last half dozen years in order to determine a threshold ratio; c) developing and applying a formula to cost the difference between the northern ratio and the threshold.

With the substitution of Algoma figures in the formula, it was possible to estimate the gross incremental instructional costs specifically incurred by Algoma College. The number of students per program in 1989-90 provided a value for the Algoma ratio which can be compared to the threshold ratio described above. Similarly, Algoma's BOI[7], average expenditure on faculty salaries, and percentage of undergraduate funding were all drawn into the equation.

Sections A, B and C of the equation encompass three distinct concepts intrinsic to the rationale behind the equation. Section A compares the number of students per program at Algoma with the similar number for the edge of the system. Implicit in this formulation is that there is an inverse linear relationship between instructional costs and enrolments per program. The larger the enrolment per program the more economies can be realized and hence costs per student can be reduced. In comparing Algoma's ratio of students per program to the edge of the system, Council accepts this assumption. However, it firmly believes that it is applicable only to smaller institutions. Therefore, the average number of students per program at Algoma is compared against the number of students per program at the "edge" institutions not receiving extra-formula support.

Section B limits the costs eligible for inclusion in analysis to those activities directly related to the delivery of instruction. Therefore, the proportion of institutional operating revenue spent on instruction is restricted to expenditures on faculty salaries discounted for time spent on research. Faculty salary data are derived using COFO-UO[8] figures. Like the Northern Ontario Grants methodology, it is assumed that 2/3 of faculty time is spent on instruction.

Finally, Section C provides a proxy for institutional "income" related to undergraduate instruction which is consistent with formula grants funding. Since Algoma is an undergraduate institution, 100% of its Base BOI is used as the formula income proxy.

As previously mentioned, based on 12% of its base BOI Algoma currently receives a Northern Grant of which approximately 80% is considered to be allocated in lieu of small class size considerations. It therefore is necessary to estimate this amount and subtract it from the derived gross extraordinary instructional costs. The net extraordinary instructional costs reflect this calculation.

> **NET EXTRAORDINARY INSTRUCTIONAL COSTS = Gross Extraordinary Instructional Costs - Portion of Northern Grant that is allocated for small class size considerations**

B. Administrative Costs

The Council of Finance Officers defines administrative costs for universities as expenses which include:

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[7] Basic Operating Income (BOI).

[8] Council of Finance Officers - Universities of Ontario

> ...the administration, planning, and information costs of activities associated with offices of the president, vice-presidents, registrar, admissions, research administration, Board and Senate secretariats, finance and accounting, personnel, central purchasing, receiving and stores, institutional research and general university memberships. eg. COU, AUCC, CAUBO"[9]

As with all other university-level institutions, Algoma College incurs such administrative expenses. What is important to identify however is the extraordinary costs of administration.

It is probable that a fixed administrative expense element exists for universities which is invariant of enrolment. The reality that a certain level of service must be provided by institutions whether there are two students or two hundred students creates this cost condition. Consequently, because Algoma has a small student population, administrative costs per student could be higher than at other institutions.

Given the assumed existence of fixed administrative expenses and positive net economies of scale in Ontario universities, the cost disadvantages associated with Algoma's size were gauged through the regression analysis formula employed in the Trent Differentiation Grant methodology.[10] This regression equation is quadratic in nature. This specification was found to be most robust under the Trent Differentiation Grant review. Specifically, the presence of a quadratic FTE enrolment term allows for testing of economies of scale while the BIU term captures the variable administrative costs associated with program mix and institutional size. In the equation below, "a" represents administrative costs that are fixed with respect to enrolment, "b" and "c" represent the slope coefficients for the predicting equation.

$$\textbf{Administrative Expenses} = a + (b * \mathrm{BIU}) + (c * \mathrm{FTE}^2 + 10{,}000)$$

The Trent regression calculation uses all Ontario universities as its sample. However, given Algoma's size and nature as an affiliate, Council believes Algoma possesses qualities of both a stand alone university and an affiliate. Council deems it appropriate therefore, to include in the sample, along with data for publicly-funded Ontario universities, federated and affiliated universities and colleges data. The predicting variables include the Full-time Equivalent(FTE) enrolment[11], Basic Income Units (BIU), and COFO-UO administrative expense data, for the above group

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9. Council of Finance Officers Universities of Ontario - Financial Report of Ontario Universities 1988-89, Vol. 1, p. 10.

10. Ontario Council on University Affairs, Advisory Memorandum 89-IV, "Trent Differentiation Grant Review", pp. 4-10.

11. The FTE used the sum of Fiscal Full Time Equivalent Enrolment(FFTE) for undergraduates as defined for purposes of formula grants and full time equivalent enrolment(FTE) for graduate students for the 4 terms in 1988-89 divided by 2. Graduate FTE enrolment is divided by two in order to make it comparable to undergraduate FFTE enrolment which approximates an FTE enrolment count for two terms.

of institutions. Lastly, Algoma's results were compared with a benchmark, the sample average of the institutions included.

To derive the specific grant amount for the 1990-91 funding year, the calculation below was necessary. The predicted administrative expenses at Algoma and the benchmark were determined through the substitution of corresponding BIU and FTE figures in the above estimating equation. The extraordinary administrative expenses per BIU were derived by subtracting the predicted level of administrative expenses using benchmark figures from the predicted administrative expense per BIU using Algoma figures. Finally, simply multiplying the extraordinary cost per BIU by Algoma's BIU level produced a reasonable estimation of the extraordinary administrative costs at Algoma.

	ALGOMA	**BENCHMARK** (sample average)
1. Predicted Administrative Expenses	**X**	**Y**
2. Actual BIUs	**A**	**B**
3. Predicted Administrative Expenses/BIU	**X/A**	**Y/B**
4. Extraordinary per BIU	**(X/A) - (Y/B)**	
5. Extraordinary at Algoma	**(X/A) - (Y/B)] * A**	

The Northern grant which Algoma receives also includes supplementary funds for goods and services as well as travel costs which are expensed into the administrative category. These two costs combined represented a significant portion of the Northern Grant in 1988-89. Like the instructional calculation, it was also necessary to net-out an estimate of these costs (20%) already covered, to arrive at a net extraordinary administrative cost for Algoma College.

NET EXTRAORDINARY ADMINISTRATIVE COSTS = Gross Extraordinary Instructional Costs - Portion of Northern Grant that is allocated for Goods and Services and Travel Costs.

C. Library Costs

When compared to other universities, Algoma does spend significantly more of its operating budget on library expenses. During the Trent Differentiation discussions, Council rejected the request for extraordinary funding in recognition of additional library expenses on the grounds that Trent did not have a sufficiently large graduate population to warrant these funds. Given Algoma's exclusively undergraduate programming this rationale could certainly be applied. However, because Algoma has argued that they have incurred higher costs per student due to economies of scale, Council reviewed, prior to its discussions with Algoma, two costing methodologies in order to determine if there was evidence that the high costs at Algoma were scale-related.

Similar to the administrative cost calculation, a regression model was tested as a means of estimating library costs. A database which includes the library expenses and BIU amounts for the Ontario universities, affiliates, and federated colleges provided the basis for the estimating equation $LC = a + bBIU$ (where LC = library costs). The predicted costs were then assessed. The results of this model and alternative specifications indicated that there were diseconomies to scale. That is, the estimated constant was negative and costs per student increased with size. The second approach tested focused on the notion of extraordinary library costs in other small scale remotely located institutions. If Algoma's library costs were compared to other institutions in the country with relatively small student populations and library needs, then additional costs as a result of scale-related problems rather than enriched library services could be determined. Library costs per student at all remotely located universities in Canada (ie. not situated on or near a parent institution campus) with enrolments under 2,000 FTE were examined. Costs per student at these institutions averaged less than that found at larger Ontario universities.

Neither of these approaches showed evidence of economies of scale between enrolment levels and library expenses. However, in response to Council's request for input, Algoma proposed a library cost methodology based on a comparison of standards to "the edge of the system" which recognized a disadvantaged position for Algoma related to scale. Algoma outlined for Council the library expenditure standards in the United States by the College Library Standards Committee.[12] These standards developed pertain to library collection size and acquisitions, staffing levels and space requirements. Depending on the rankings achieved[13] the extraordinary grant generated for library costs under this methodology for the two top classifications "B" and "A" ranged between $40,000 and $120,000.

After, reviewing the results of its own inquiries and the case made by Algoma, Council was not convinced that library costs should be included in the extraordinary grant amount.

Summary

The results of Council's findings are detailed in Table 1 of the Memorandum.

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[12] Jacquelyn M. Morris, "Standard for College Libraries, 1986", C & L NEWS, March 1986.

[13] Libraries which provide 90-100 percent of these formula requirements can, when they are supported by sufficient other staff members, consider themselves at the A level in terms of staff size; those that provide 75-89 percent of these requirements may rate themselves as B; those with 60-74 percent requirements quality for a C; and those with 50-59 percent requirements warrant D.

90-VIII The Ontario Graduate Scholarship Program 1991-92

1.0 Introduction

Government established the Ontario Graduate Scholarship Program in 1973 to encourage excellence in graduate studies. Since then, the program has played a critical role in attracting and nurturing excellent new scholars in this Province. In this Memorandum, Council submits its advice on the value, number, and distribution of the Ontario Graduate Scholarships for 1991-92. This advice is tendered in accordance with Council's long-term objectives for the Ontario Graduate Scholarship Program as outlined in Advisory Memorandum 85-VI, The Ontario Graduate Scholarship Program, 1986-87, the modifications to the institutional award category which were recommended in Advisory Memorandum 87-IX, The Ontario Graduate Scholarship Program, 1988-89 and the four-year plan for the expansion in the number of awards recommended in Advisory Memorandum 89-VIII, The Ontario Graduate Scholarship Program, 1990-91.

2.0 Scholarship Stipend Value

In establishing the minimum stipend value for 1990-91, the Minister accepted Council's advice set forth in Advisory Memorandum 89-VIII. Following Council's recommendation, the Minister announced that the value of the Ontario Graduate Scholarship (OGS) stipend for 1990-91 would be increased from the 1989-90 level of $10,200 or $3,400 per term to $11,298 or $3,766 per term.[1] This represented a 10.8% increase in the value of the award.

To encourage excellence in graduate studies within the Ontario university system, Council believes that the OGS stipend must be set at a level which will attract and retain superior graduate students. For a number of years, Council has recommended that the value of the OGS stipend should be set at its original level of 80% of the average value of the Federal government scholarships available from the Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC). Council is extremely pleased that after a number of years of shortfall in that target, for 1990-91 Government met Council's estimate of this target (see Table 1).

Council is convinced that provincial support for graduate awards must keep pace with other major scholarships. Maintaining the value of the scholarship at 80% of the estimated 1991-92 value of the NSERC and SSHRC awards will continue to maintain its status, importance and effectiveness. If the OGS award is to continue to be valued at 80% of the estimated mean of the NSERC and SSHRC awards in

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[1] Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H.V. Nelles, May 31, 1990.

Table 1

Comparative Scholarship Stipends

	OGS	NSERC PGS Awards[1]	SSHRC Doctoral Scholarships	OGS as % of NSERC/SSHRC Average Value
1974-75	$ 3,400[2]	$ 4,500	$ 4,000	80.0
1975-76	3,400	5,000	5,000	68.0
1976-77	3,750	5,520	5,500	68.1
1977-78	4,350	6,000	6,000	72.5
1978-79	4,500	6,360	6,360	70.8
1979-80	4,800	7,000	6,750	69.8
1980-81	4,890	8,500	7,860	59.8
1981-82	5,700	9,350	8,760	63.0
1982-83	6,270	10,500	9,720	62.0
1983-84	6,585	11,100	10,800	60.1
1984-85	6,915	11,600	11,340	60.3
1985-86	7,305	11,600	11,640	62.9
1986-87	8,760	11,600	12,000	74.2
1987-88	9,105	11,600	12,000	77.2
1988-89	9,510	12,750	12,240	76.1
1989-90	10,200	14,100	12,720	76.1
1990-91	11,298	14,640[3]	13,356	80.7

Notes:

1. NSERC post-graduate scholarship (PGS) values are those in effect in the Fall of each academic year.
2. Adjusted to take account of the integration of fees into the award in 1976-77.
3. Average value of NSERC awards of $14,000 for years 1 and 2 of graduate studies and $15,600 for years 3 and 4 of graduate studies, weighted by the actual distribution of awards held in 1990 (60% in years 1 and 2 and 40% in years 3 and 4).

1991-92, it will be necessary to raise the value of the OGS award to $11,859 or $3,953 per term, which would represent an increase of 5.0%.[2]

Accordingly, Council *recommends to the Minister:*

OCUA 90-39
ONTARIO GRADUATE SCHOLARSHIP STIPENDS 1991-92

THAT in 1991-92, Ontario Graduate Scholarships carry a minimum stipend value of $11,859 or $3,953 per term.

3.0 Number of General Awards

For the past three years, Council recommended that the number of general, institutional and visa OGS awards be increased from the existing level of 1,200 to 1,300. In rejecting this advice for 1990-91 the Minister indicated that "Ministry staff are presently reviewing the implications of recommendations 89-48 (increasing number of scholarships from 1,200 to 1,300 per year)"[3] and that a decision on this recommendation will be made prior to the start of the 1991-92 OGS program year.

Council continues to believe that there is a strong need to increase the number of OGS awards. An increase in the number of awards responds to a number of pressures experienced by universities for increased enrolment in graduate studies of highly qualified students. As indicated in Table 2, with the exception of 1981-82, since 1978-79 the total number of Ontario Graduate Scholarship awards available has been maintained at 1,200. Council is concerned that there has been a steadily increasing disparity between the number of qualified applicants and the number of stipends awarded. During the period from 1978-79 to 1990-91 while the number of OGS applications increased by 55%, the proportion of applicants supported by the program has declined from 23.8% in 1978-79 to 15.3% in 1990-91. During this same period the total number of awards available has not increased from the initial number of 1,200. The growth in the number of applicants over the last decade, without any corresponding increases in the number of awards, has resulted in many excellent applicants being denied support. Council remains concerned about the continuing decline in the proportion of awards to applicants.

In the past three years Council has recommended that the number of awards available be increased by 100 to a total of 1,300. While additional scholarships have not been created to date, Council is encouraged by the Minister's comments in this regard that Ministry staff are presently reviewing this recommendation.

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[2] The 1991-92 NSERC estimate used in the calculation is $15,504, derived as the weighted average of the current 1990-91 NSERC values of $14,000 for years 1 and 2 and $15,600 for years 3 and 4 of graduate studies ($14,640), inflated by a cost-of-living factor of 5.9%. The 1991-92 SSHRC value is estimated to be $14,144, which is the 1990 value ($13,356) inflated by an estimated cost-of-living factor of 5.9%.

[3] Conway, op. cit.

Table 2

Number of OGS Awards and Applicants 1978-79 to 1989-90

	Number of Awards Available	Total Number of Applicants[1]	% of Applicants Supported by the Program
1978-79	1,200	5,041	23.8
1979-80	1,200	5,171	23.2
1980-81	1,200	5,711	21.0
1981-82	1,000	5,971	16.7
1982-83	1,200	6,249	19.2
1983-84	1,200	7,222	16.6
1984-85	1,200	7,320	16.4
1985-86	1,200	7,305	16.4
1986-87	1,200	7,190	16.7
1987-88	1,200	7,473	16.1
1988-89	1,200	7,771	15.4
1989-90	1,200	7,854	15.3
1990-91	1,200	7,827	15.3

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1. Source: Ministry of Colleges and Universities, Students Awards Branch.

Council continues to believe that the number of OGS awards should be increased. Council therefore recommends that the total number of awards for 1991-92 be increased from 1,200 to 1,300.

Accordingly, Council *recommends to the Minister:*

OCUA 90-40
NUMBER OF GENERAL ONTARIO GRADUATE SCHOLARSHIPS FOR 1991-92

THAT for 1991-92, 1,300 Ontario Graduate Scholarships be made available for:

a) open competition;
b) institutional awards; and
c) visa students; and

that institutional awards for 1991-92 be distributed according to Recommendation 87-40 in Advisory Memorandum 87-IX.

4.0 Targetted Doctoral Student Awards

The availability of scholarships will have a critical role to play in alleviating faculty shortages which are predicted to reach significant proportions by the mid to latter 1990s. Council's 1990 Spring Hearings focussed in part on issues surrounding faculty renewal in Ontario universities. In its brief, the Council of Ontario Universities (COU) estimated that the number of faculty retirements would increase from its current level of about 200 per year to a peak of over 600 annually in 2007.[4] By the year 2000, 27% of current full-time faculty will have reached age 65. By the year 2005, 46% of current full-time faculty will have reached age 65.

Universities in Ontario will not be alone in the recruitment challenges posed by these retirements. Institutions in other jurisdictions, confronting the same pressures, will be competing with Canadian universities for new faculty. The Ontario Confederation of University Faculty Associations (OCUFA) indicated that in the United States a combination of an increase in the demand for university professors and a decrease in the supply of those qualified to assume academic positions will, by 1997, lead to an imbalance in market for new faculty where "there will be roughly four candidates for every five job openings in universities."[5] With a similar situation developing in the United Kingdom and other countries, unlike the 1960s and early 1970s, it will be extremely difficult for universities to fill open faculty positions with non-resident or offshore recruitment. Ontario universities will need to look at generating their own faculty replacements.

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[4] Council of Ontario Universities, Faculty Renewal in Ontario Universities, Some Notes for Discussion with the Ontario Council on University Affairs, April, 1990, p. 1.

[5] Ontario Confederation of University Faculty Associations, Brief to the Ontario Council on University Affairs, April, 1990, p. 3.

A number of initiatives will need to be undertaken to meet the challenges posed by this mounting crisis. In its funding advice for 1991-92 and in its upcoming discussion paper on what it heard on Human Resource issues in this year's Spring Hearings, Council identifies a number of issues and some of the initiatives needed to be undertaken. For example, entering the professoriate must be made an attractive career stream relative to other segments of the economy. Improvements to the efficiency of graduate studies must be addressed by improving completion rates and shortening the times to completion in doctoral studies. Even with effective initiatives in these other areas, however, it will be vital to attract the best and the brightest students to graduate studies in Ontario universities so that a sufficient cohort of well-trained scholars is available to fill the increasing faculty vacancies.

While all disciplines will encounter significant replacement demands over this period, available data suggest that overall levels of replacement demand will be led by particularly pronounced numbers of retirements in certain fields such as English Languages and Literature, History, Mathematics, Psychology and Commerce, Management and Business Administration. Table 3 outlines the projected retirements in the years 2000 and 2005 for those disciplines which will experience the highest number of retirements.

In last year's advice on the OGS program, Council recommended that supplementary OGS awards be made available to doctoral students intending to pursue academic careers in targetted disciplines anticipated to experience high faculty replacement needs. It was recommended that beginning with 200 awards in 1990-91 these awards should grow annually by 200 to a steady-state level of 800 per year in 1993-94 and be sustained at this level until at least the year 2005-2006. Since the length to completion of doctoral candidates as well as the age of faculty retirements can vary, an exact match between targetted doctoral scholarships and retirements is not possible. This staged implementation of targetted doctoral scholarships roughly reflected the fact that faculty renewal needs will build at an increasing rate during this decade. In response to this recommendation, the Minister indicated that Ministry will review the recommended initiative for a decision prior to the beginning of the 1991-92 fiscal year. The need for this program has not changed.

As evidenced by the 1989-90 university corridor adjustments process where institutionally proposed growth in graduate studies outstripped the funds available, universities are eager to increase graduate enrolment. It is important to make graduate study, particularly in doctoral programs, a more attractive option to prospective scholars. Ontario must be prepared to continue its lead role in the production of new faculty, as institutions both in the province and in other provincial jurisdictions look to Ontario university graduates as an important source of future faculty.

As part of an overall strategy to meet the challenges replacing increasing number of retired faculty, Council believes that a significant and effective response will be to attract new scholars to Ontario universities by increasing the total number of Ontario Graduate Scholarships and by targetting these scholarships towards disciplines with significant faculty renewal needs. Enhanced fellowship support which

Table 3

Projected Ontario University Faculty Retirements By Discipline with the Largest Number of Retirements by the Years 2000 and 2005

Discipline	Number Faculty Age 65 by the Year 2000	Proportion Age 65 by the the Year 2000	Number Faculty Age 65 by the Year 2005	Proportion Age 65 by the Year 2005
English Language/Literature	210	34.7%	342	56.4%
Medical Specialties	175	26.6%	297	45.1%
Mathematics	154	26.2%	287	48.8%
Basic Medical Sciences	149	37.9%	216	55.0%
Commerce/Business/Administration	145	19.5%	250	33.7%
Physics	141	39.4%	224	62.6%
Psychology	129	21.0%	256	41.8%
Chemistry	127	36.9%	206	59.9%
History	124	29.5%	223	53.0%
Philosophy	101	33.2%	179	58.9%
Education - Non-Teaching Fields	101	35.7%	172	60.8%
French Language/Literature	99	30.0%	159	48.2%
Sociology	99	26.6%	157	42.2%
Economics	95	19.2%	170	34.3%
Political Science	85	22.4%	153	40.4%
Surgical Specialties	84	30.7%	138	50.4%
Medicine	73	24.3%	124	41.3%
Biology	67	28.3%	108	45.6%
Electrical Engineering	66	30.1%	111	50.7%
Theological Studies	63	43.2%	88	60.3%
Elementary/Secondary Teacher Training	62	28.8%	111	51.6%
Music	60	30.9%	90	46.4%
Geography	59	20.7%	109	38.2%
Civil Engineering	59	36.0%	103	62.8%
Chemical Engineering	56	42.7%	72	55.0%

Notes: Assumes individual retire at age 65.

Source: Statistics Canada, 1988-89

reduces students' financial burden, will serve to increase the returns to graduate study, in so doing attract prospective students to graduate education. By attracting more top scholars into doctoral programs which will experience significant faculty renewal challenges, an expanded OGS program will help institutions better meet their future needs.

To effectively relieve faculty shortages, it is critical that these awards are not allocated according to student demand, but rather are targetted to students studying in those disciplines experiencing highest levels of faculty replacement demand who demonstrate intentions to pursue academic careers. As Table 4 indicates, in some discipline areas there has not been a consistent level of applications for OGS awards in recent years. This demand does not match future faculty renewal needs. Council is convinced, however, that the introduction of targetted awards will be a catalyst for increasing student demand in the targetted disciplines. In this regard, Council will recommend on the allocation of these awards based on analysis of anticipated faculty replacement needs undertaken by the Council of Ontario Universities or the Ontario Council on Graduate Studies.

Given the substantial lead time involved in the production of doctoral students, it is important that immediate measures be adopted to attract enrolments in critical programs to ensure that sufficient numbers of qualified graduates are available as faculty retirements grow in numbers in the late 1990s. This program has been delayed a year already. Further delays should be avoided.

Accordingly, Council *recommends to the Minister:*

OCUA 90-41
SUPPLEMENTARY ONTARIO GRADUATE SCHOLARSHIPS

THAT in addition to the awards recommended in 90-40, supplementary Ontario Graduate Scholarships be made available to doctoral students intending to pursue academic careers, targetted to disciplines experiencing high levels of faculty replacement demand, as identified with the assistance of the Council of Ontario Universities or the Ontario Council on Graduate Studies, according to the following schedule:

a) 200 in 1991-92
b) 400 in 1992-93
c) 600 in 1993-94
d) 800 in 1994-95

and that the number of these supplementary awards be reviewed at five year intervals beginning in the year 2000-2001.

5.0 Visa Student Awards

The Ontario Graduate Scholarship Program rewards visa student scholars for academic excellence and permits Ontario universities to compete with other provinces, and other nations, for outstanding visa students.

Table 4

OGS Applications – Distribution 1979-80 to 1990-91

	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	% change 1989-90 to 1990-91	% change 1979-80 to 1990-91
Humanities	1,338	1,376	1,410	1,396	1,505	1,552	1,556	1,596	1,669	1,730	1,836	1,921	4.6	43.6
Social Sciences	1,931	2,128	2,265	2,260	2,670	2,627	2,681	2,594	2,670	2,747	2,785	2,699	(3.1)	39.8
Physical Sciences	590	658	685	810	865	914	756	726	708	930	960	938	(2.3)	59.0
Biological Sciences	929	1,100	1,124	1,196	1,430	1,403	1435	1,439	1,516	1,539	1,473	1,487	1.0	60.1
Applied Sciences	383	449	487	587	752	824	877	835	910	825	800	782	(2.3)	104.2
Total	5,171	5,711	5,971	6,249	7,222	7,320	7,305	7,190	7,473	7,771	7,854	7,827	(0.3)	51.4

1. Source: Ministry of Colleges and Universities, Student Awards Branch.

Council believes that the presence of a minimum number of academically outstanding visa graduate students in Ontario provides great benefits to the universities in which they are enrolled. Council recommends, therefore, that the present number of visa student awards be continued.

Accordingly, Council *recommends to the Minister:*

OCUA 90-42
ONTARIO GRADUATE SCHOLARSHIPS TO PERSONS ON STUDENT VISA IN 1991-92

THAT in 1991-92, 60 scholarships be reserved for persons who at the time of application are student visa holders.

6.0 Conclusion

The Ontario Graduate Scholarship Program is an effective instrument for enhancing the quality of graduate education in Ontario and furthering Government's objectives of achieving quality and excellence in the Ontario university system. A strong Ontario Graduate Scholarship Program ensures the presence of a critical mass of excellent graduate students at Ontario universities. The encouragement, recognition, and reward of academic excellence are crucial to the growth and competitiveness of the provincial economy in an increasingly knowledge-based society and the enhancement of the intellectual and cultural life of the Province.

An expanded and strengthened OGS program can effectively respond to the faculty hiring challenges of the 1990s and beyond. The enhanced availability of awards will encourage participation in doctoral programs, thereby assuring institutions of a steady supply of qualified scholars with which to maintain existing capacity or accommodate growth in the face of large scale retirements. This expansion of graduate opportunity with a view to replacing the retiring professoriate will at the same time ensure that private industry will not be denied highly trained researchers as universities' needs expand.

Council is convinced that the recommendations set forth in this Memorandum will help enhance the status, importance, and effectiveness of the Ontario Graduate Scholarship Program.

Dr. H.V. Nelles,
Chairman

December 14, 1990

90-X Existing Program Funding and New Degree Designation Reviews for Ryerson Polytechnical Institute

1.0 Introduction

In this Memorandum, the Ontario Council on University Affairs recommends on the continued funding eligibility of the following eight undergraduate programs at Ryerson Polytechnical Institute in accordance with the procedures for the Ryerson Program Review Process established in Advisory Memorandum 84-V "Program Funding Procedures for Ryerson Polytechnical Institute" (see Section 2.0):

2.1 Bachelor of Business Management Program in Business Management (BBM)

2.2 Bachelor of Technology Program (Applied Computer Science) (BTech)

2.3 Bachelor of Technology Program (Electrical Engineering) (BTech)

2.4 Bachelor of Applied Arts Program (Fashion) (BAA)

2.5 Bachelor of Applied Arts Program (Journalism) (BAA)

2.6 Bachelor of Technology Program (Laboratory Science) (BTech)

2.7 Diploma in Landscape Architectural Technology

2.8 Diploma in Metallurgical Technology

The Council also recommends on the appropriateness of Ryerson Polytechnical Institute granting two new undergraduate degree designations: the Bachelor of Social Work (BSW) degree and the Bachelor of Engineering (BEng) degree in Electrical Engineering. These requests were considered in accordance with the procedures set out in Advisory Memorandum 87-X "An Amendment to the Ryerson Polytechnical Institute Act of 1977 Regarding Degree Designation". With regard to the proposals involving the issue of degree designation, Council has considered the advice of its Academic Advisory Committee (see Section 3.0).

2.0 Programs at Ryerson Polytechnical Institute Considered for Continued Funding Eligibility

2.1 RYERSON POLYTECHNICAL INSTITUTE

Program Review Process Results
for the
Bachelor of Business Management Program
in Business Management
(BBM)
in accordance with
Advisory Memorandum 84-V

On January 30, 1990, Ryerson Polytechnical Institute submitted the Bachelor of Business Management program to the Ontario Council on University Affairs for a recommendation regarding the continuation of funding.

This program is offered on a diploma-degree continuum. It is designed to provide students with specialization in their chosen careers, a practical and comprehensive knowledge of the central functions of business, an awareness of social, political and economic issues facing contemporary society, a questioning attitude to encourage and assist change, an ability to employ analytical skill for decision-making, and a desire to continue to learn and develop.[1] Both career-oriented education and liberal education are emphasized in the curriculum. Two major streams are offered: a Human Resources Management Major; and a Management and Enterprise Development Major.

Council was provided with detailed internal studies conducted by Ryerson Polytechnical Institute regarding the societal need for the program, its academic quality and financial viability. The results of these studies and Council's recommendation are contained below.

1. Assurance of Societal Need

The societal need for this program was evaluated by a Program Review Committee (PRC) established in April 1989. The PRC consisted of 11 members drawn from business, industry, crown corporations, Ryerson and the broader academic community.

Student demand for this program far exceeds the number of spaces available. The report of the PRC indicates that more recently, student demand comes primarily from students with Grade 13 as a minimum qualification. A significant and increasing proportion of the enrolment has some university experience.[2] For many years the total enrolment in the program has averaged 2000 full-time students, with first year enrolments averaging 581 students between 1984 and 1988. On average, 243 students per year continued on to the fourth year of the program during the same time period.[3]

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[1] Ryerson Polytechnical Institute, Program Review Process, Business Management, Academic Quality Element, January 30, 1990, p. 2, [quoting the Ryerson Calendar].

[2] Ibid., p. 1.

Recent revisions to the curriculum will encourage a higher retention rate between third and fourth year. Ryerson indicates that in order to maintain the overall steady-state enrolment level, first year enrolments may eventually be reduced.

A report from the Director of the Placement Centre indicated that the demand for graduates of the Business program is excellent.[4] The number of vacancies has increased and salaries for entry-level jobs are very competitive.

An alumni survey conducted in 1986 indicates that 8% of all graduates surveyed were employed in mathematics, statistics or systems analysis, 10% as senior directors, managers and administrators, 12.8% in sales occupations, 13.8% as senior executives (Vice-President level or higher) or owners/partners in the private sector, 14.8% as "other" managers and administrators, 21.5% in occupations related to/supporting management and administration, 30.2% in manufacturing-related occupations, and 32.7% in finance, insurance and business service industries.[5] Sixty-four percent of the salaries reported for 1985 ranged between $15,001 and $30,000.[6]

A survey of 14 companies, representing a variety of potential employers of program graduates indicated that Ryerson graduates are actively recruited for their ability to contribute immediately to the corporation as they are perceived to have been well prepared for the work environment, that the recruitment of Ryerson graduates is expected to increase over the next 5 to 10 years, that the program has kept up with industry's needs, that Ryerson produces graduates who can and do succeed in the corporate environment, and that even more practical experience would be an asset to graduates.

It was noted by many respondents that although Ryerson's business program is meeting and appears to be able to continue meeting the growing need for business graduates in the future, Ryerson's program must constantly anticipate and adapt to future change in order that program graduates will continue to be effective in the workplace.[7]

This program is completely consistent with Ryerson's role of offering programs oriented toward the practical and immediately useful, and meets a societal need for industrial and commercial expertise in Ontario.

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[3] Ibid., p. 29.

[4] Ryerson Polytechnical Institute, Program Review Process, Business Management Program, Societal Need Element, January 30, 1990, p. 44.

[5] Ibid., pp. 51-54.

[6] Ibid., p. 56.

[7] Ibid., pp. 58-83.

The PRC unanimously concluded that the Bachelor of Business Management program meets all aspects of the societal need criterion. Societal need for program graduates was deemed significant. The Committee indicated that the increased emphasis on internationalization in the curriculum should be continued and that Ryerson should encourage greater links with business through the use of co-op ventures.[8]

2. Assurance of Academic Quality

A review of the academic quality of the program was conducted by Ryerson's Academic Council. The program is in the process of undergoing major curricular change, oriented toward a shift in emphasis from diploma to degree offerings to ensure that the curriculum meets the current needs of the business community and reflects the business environment of the future. The unique character of the Ryerson program is its tri-partite structure, offering professional courses which provide technical knowledge for entry-level employment, professionally-related courses to broaden the knowledge base and assist in future career growth, and liberal studies courses designed to produce a well-rounded individual with a fully-developed sense of perspective.[9]

The Faculty of Business is a full member of the Canadian Federation of Deans of Management and Administrative Studies and of the American Assembly of Collegiate Schools of Business. Numerous Ryerson credits are applicable toward the accreditation programs of professional bodies such as the Certified General Accountants Association of Ontario, The Society of Management Accountants of Ontario, The Institute of Chartered Accountants of Ontario, and the Personnel Association of Ontario. Further, the University of Toronto and York University recognize particular Ryerson courses as equivalent to first year MBA courses while the University of Ottawa gives advanced standing toward their MBA program on an individual course-by-course basis.[10]

The report of the Academic Council included a statement from the Business Management Librarian which indicated that the library collection in general is adequate to support the program, and that periodical and reference collections are strong. However, it was noted that the book collection should be strengthened in all subject areas, and especially in the areas of Entrepreneurial Studies, Modern Manufacturing Management and topics relating to the legal aspects of International Business and gender issues in the workplace. As well, it was recommended that the audio visual collection should be updated.

Finally, it was noted that the classroom facilities allocated to this program are seriously inadequate. The report notes:

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[8] Ibid., pp. 1-2.

[9] Ibid., p. 28.

[10] Ryerson Polytechnical Institute, Program Review Process, Business Management Program, Academic Quality Element, January 30, 1990, p. 30.

> ...classroom arrangements and sizes are dictated by the structure of the building, not by academic needs. Consequently, the rooms seldom have the appropriate space for the number of students, lines of sight to the blackboards and overhead screens are obstructed, and the general cleanliness and comfort levels are atrocious.
>
> The heating, cooling and ventilation systems simply don't work.[11]

It was concluded that major renovations were required at a minimum, and that a complete renewal of the physical plant was in order.

The Academic Standards Committee of the Ryerson Academic Council reaffirmed the academic quality of the program of studies leading to the Bachelor of Business Administration program in November 1989. The Academic Council approved the continuation of the program on academic grounds on November 7, 1989.

3. Assurance of Financial Viability

The Board of Governors of Ryerson Polytechnical Institute considered the financial viability of the Bachelor of Business Management program. After reviewing documentation pertaining to financial soundness, program contribution to Institute overhead, financial viability data, and steady-state projections in constant dollars, on January 18, 1990 the Finance Committee endorsed the financial viability of the program. This recommendation was accepted by the Board of Governors at its meeting on January 29, 1990 at which it formally attested to the financial viability of the program.

4. Recommendation

By letter of January 30, 1990, Ryerson Polytechnical Institute informed Council that the Bachelor of Business Management (BBM) program was positively reviewed with respect to its continuation on the basis of societal need, academic quality and financial viability.

The President of Ryerson, therefore, formally requested on behalf of Ryerson that OCUA recommend to the Minister that the Bachelor of Business Administration program be deemed eligible for continued funding.

Council, having carefully reviewed the documentation regarding the Bachelor of Business Administration program, is satisfied that Ryerson has thoroughly considered all aspects of the need, quality and financial viability of the program and that the program meets Council's criteria for continued funding eligibility.

Accordingly, Council *recommends to the Minister:*

OCUA 90-46
CONTINUED ELIGIBILITY OF ENROLMENT IN THE EXISTING

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[11] Ibid., p. 51.

DIPLOMA PROGRAM AND BACHELOR OF BUSINESS MANAGEMENT DEGREE PROGRAM IN BUSINESS MANAGEMENT AT RYERSON POLYTECHNICAL INSTITUTE FOR FUNDING PURPOSES

THAT enrolment in the Diploma program and Bachelor of Business Management degree program in Business Management at Ryerson Polytechnical Institute continue to be deemed eligible for counting for funding purposes.

2.2 RYERSON POLYTECHNICAL INSTITUTE

Program Review Process Results
for the
Bachelor of Technology Program (Applied Computer Science)
(BTech)
in accordance with
Advisory Memorandum 84-V

On January 30, 1990, Ryerson Polytechnical Institute submitted the Bachelor of Technology (Applied Computer Science) program to the Ontario Council on University Affairs for a recommendation regarding the continuation of funding.

This four-year degree program has been in existence since 1980. It developed out of an existing diploma program. The courses currently constitute a mixture of computer science courses augmented by courses in mathematics, physics, and industrial and electrical engineering. The objectives of the program, broadly stated, are to:

> produce graduates who have a broad-based, general background in both software and hardware aspects of computer science and are able to apply that knowledge in the practice and implementation of current concepts [and who are] ...familiar with the operation of both applications and systems software as implemented on a variety of computer systems.[12]

As designed, the program produces graduates who can work effectively as software practitioners in a wide variety of professional areas in the computing industry. An upper year thesis is required, based on actual problems encountered in industry. Specialized option packages are available in the third and fourth years which enable students to develop expertise in an area of applications.

Council was provided with detailed internal studies conducted by Ryerson Polytechnical Institute regarding the societal need for the program, its academic quality and financial viability. The results of these studies and Council's recommendation are contained below.

1. Assurance of Societal Need

The societal need for this program was evaluated by a Program Review Committee (PRC) established in November 1988. The PRC consisted of seven members drawn from within Ryerson's academic community, government, business and industry.

Data contained in the PRC report indicated that student demand for the program is high. In fact, there are approximately 3 qualified applicants for every position available in the program. Annual enrolment has remained very stable since 1982 when there were 82 students enroled in year one. Fall 1989 data revealed an intake of 84 students. There has been an average steady-state enrolment level of 260 students over the five year period 1984 to 1988.[13] Each year about 50 students graduate.[14]

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[12] Ryerson Polytechnical Institute, Program Review Process, Applied Computer Science Program, Academic Quality Element, January 30, 1990, p. 5.

The PRC found that employment opportunities for graduates were excellent now and into the future. Graduates are employed by business, industry and government in positions such as Systems Programmer, Programmer Analyst and Data Base Administrator. Many graduates have moved into positions of "significant managerial responsibility" within a variety of organizations.[15] Employment opportunities for program graduates are expected to grow significantly over the next decade.

A survey of 21 companies revealed that they would require approximately 130 applied computer science graduates annually, and that Ryerson graduates were hired because they were perceived as having a good mix of academic and practical knowledge. Potential employers noted that their companies were most commonly engaged in programming with business applications (68%), scientific applications (30%), communications (19%) and systems programming (16%).[16]

This program is completely consistent with Ryerson's role of offering programs oriented towards the practical and immediately useful, and contributes to the development of Ontario's industrial and commercial base by meeting current and future market needs.

The PRC unanimously concluded that the program meets and will continue to meet a pressing societal need. It was concluded that the future was "extremely bright" for professionals educated in Applied Computer Science in all sectors of society. The PRC recommended that additional resources be allocated to the program to ensure controlled growth in other applications areas, which would enable the program to meet the anticipated increased future demand by society for education in this field.[17]

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[13] Ryerson Polytechnical Institute, Program Review Process, Applied Computer Science, Societal Need Element, January 30, 1990, Attachment II, First and Second Tables.

[14] Ryerson Polytechnical Institute, Program Review Process, Applied Computer Science Program, Academic Quality Element, "Statement of Ryerson Library's Holdings to Support the Applied Computer Science Program", January 30, 1990, p. 2.

[15] Ryerson Polytechnical Institute, Program Review Process, Applied Computer Science Program, Academic Quality Element, January 30, 1990, p. 4.

[16] Ryerson Polytechnical Institute, Program Review Process, Applied Computer Science, Societal Need Element, Summary of Responses to Survey in ACPS, Appendix C.

[17] Ryerson Polytechnical Institute, Program Review Process, Applied Computer Science, Societal Need Element, January 30, 1990, p. 4.

2. Assurance of Academic Quality

A review of the academic quality of this program was conducted by Ryerson's Academic Council. The report of the Academic Council notes a variety of modifications to the program's curriculum since 1979-80 in order to maintain currency and relevance and to streamline the program.

The Academic Council's report noted that the program had undergone an accreditation review by the Canadian Information Processing Society (CIPS) in 1986. Although the program did not receive accreditation at that time due to the lack of a graduate school and of a separate Department of Computer Science, a number of program strengths were identified including well-equipped central computer facilities, a "world class facility in CATE", a good library collection, good classroom and lab facilities, a well developed tradition of advisory committees, a strong mathematics base, opportunity for indepth study and the ability to consistently place graduates in positions ranking in the top starting salary category.[18] The report indicates that Ryerson is currently reviewing its plans for achieving accreditation as it simultaneously implements changes, where possible, to meet the concerns expressed by CIPS. Ryerson has, however, assured Council that it has "no plans to seek authority to offer a postgraduate program leading to a master's degree in this field."[19]

A report from the Science and Technology Librarian at Ryerson attests to the fact that the library collection in general is adequate to support the program and that the periodical and reference collections are both good. However, it was noted that audiovisual materials need to be updated, that if money were available some subject areas needed improvement, and that updated editions and multiple copies of materials should be purchased.

The Academic Standards Committee of the Ryerson Academic Council reaffirmed the academic quality of the program of studies leading to the Bachelor of Technology (Applied Computer Science) program in November 1989. The Academic Council approved the continuation of the program on academic grounds on November 7, 1989.

3. Assurance of Financial Viability

The Board of Governors of Ryerson Polytechnical Institute considered the financial viability of the Applied Computer Science program. After reviewing documentation pertaining to financial soundness, program contribution to Institute overhead, financial viability data, and steady-state projections in constant dollars, on January 18, 1990 the Finance Committee endorsed the financial viability of the program. This recommendation was accepted by the Board of Governors at its meeting on January 29, 1990 at which it formally attested to the financial viability of the program.

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[18] Ryerson Polytechnical Institute, Program Review Process, Applied Computer Science Program, Academic Quality Element, January 30, 1990, p. 17.

[19] Letter from Dr. Dennis R. Mock, Acting President, Ryerson Polytechnical Institute, to Dr. H.V. Nelles, Chairman, OCUA, November 21, 1990.

4. Recommendation

By letter of January 30, 1990, Ryerson Polytechnical Institute informed Council that the Bachelor of Technology (Applied Computer Science) program was positively reviewed with respect to its continuation on the basis of societal need, academic quality and financial viability.

The President of Ryerson, therefore, formally requested that OCUA recommend to the Minister that the Applied Computer Science program be deemed eligible for continued funding.

Council, having carefully reviewed the documentation regarding the Bachelor of Technology (Applied Computer Science) program, is satisfied that Ryerson has thoroughly considered all aspects of the need, quality and financial viability of the program and that the program meets Council's criteria for continued funding eligibility.

Accordingly, Council *recommends to the Minister:*

OCUA 90-47
CONTINUED ELIGIBILITY OF ENROLMENT IN THE EXISTING BACHELOR OF TECHNOLOGY DEGREE PROGRAM IN APPLIED COMPUTER SCIENCE AT RYERSON POLYTECHNICAL INSTITUTE FOR FUNDING PURPOSES

THAT enrolment in the Bachelor of Technology (Applied Computer Science) program at Ryerson Polytechnical Institute continue to be deemed eligible for counting for funding purposes.

2.3 RYERSON POLYTECHNICAL INSTITUTE

Program Review Process Results for the Bachelor of Technology Program (Electrical Engineering) (BTech) in accordance with Advisory Memorandum 84-V

On January 30, 1990, Ryerson Polytechnical Institute submitted the Bachelor of Technology degree program in Electrical Engineering to the Ontario Council on University Affairs for a recommendation regarding the continuation of funding.

This program is offered on a degree-diploma continuum. It prepares students for a wide range of careers in the design, development, manufacturing, testing and marketing of electrical and electronic equipment and systems. Graduates at both the diploma and degree levels find employment over a wide spectrum of professional activities including research and development, industrial process control, marketing and technical services and technical education.[20] The program has a distinctly applied focus and is intended to meet the curricular requirements for engineering accreditation.[21]

Council was provided with detailed internal studies conducted by Ryerson Polytechnical Institute regarding the societal need for the program, its academic quality and financial viability. The results of these studies and Council's recommendation are contained below.

1. Assurance of Societal Need

The societal need for this program was evaluated by a Program Review Committee (PRC) established in April 1989. The PRC consisted of nine members drawn from business, industry, the professional association, Ryerson and the broader academic community.

Student demand for this program has been strong. Full-time enrolment levels between 1985 and 1989 have averaged 215 students per year in year one and 83 students in year four for an average of 633 students enroled per year in all years.[22]

The PRC report notes a major shift in the ratio of degree and diploma graduates of the program between 1984 and 1988 from 136 diploma graduates and 31 degree graduates in 1984 to 27 diploma graduates and 95 degree graduates in 1988. The student demand data suggest that there is a very strong demand by students for a four year degree. The PRC report also indicates that:

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[20] Ryerson Polytechnical Institute, 1989-90 Calendar, p. 135.

[21] Ryerson Polytechnical Institute, Program Review Process, Electrical Engineering Program, Societal Need Element, January 30, 1990, p. 170.

[22] Ibid., p. 6, Table 3.

an appreciable number of those students that succeed in all of the required third year courses, but do not possess the GPA promotion requirements opt to repeat the third year in order to upgrade their GPA and become eligible for promotion to the fourth year.[23]

A 1986 survey of program graduates revealed that a wide variety of corporations including Ontario Hydro, IBM, Bell Canada, Allen Bradley Canada Ltd., Motorola Canada Ltd., and GE Canada employ numerous graduates. Positions most often held by program graduates surveyed include that of engineering manager/supervisor (93)[24], company president (53), teacher (34), supervisor/superintendent (31), senior electrical/electronics technologist (22) and sales engineer/manager (21).[25]

In addition, a 1987 survey of 1987 graduates conducted six months after graduation revealed that 90% of the full-time program graduates were employed within 4 months of graduation, 93.5% of full and part-time graduates were employed in jobs related to their field of study and that 74% of the graduates believed that their degree was an important element in the position they had obtained.[26] Salaries reported were comparable to the medium salary level of 1987 bachelor degree engineering graduates, as reported by the Association of Professional Engineers of Ontario's (APEO) 1987 salary survey.[27]

Many program graduates apply to APEO for professional engineering status and write the APEO examinations to obtain this certification. Others go on to further university education in the engineering field.

The PRC report states that during the 1984 to 1988 period, the employment opportunities for graduates have been excellent and that future opportunities should continue to be favourable. Recent studies have resulted in mixed projections regarding the supply and demand for electrical engineering graduates in the future. A study published in 1988 by the Technical Service Council forecasts that the engineering manpower supply and demand cycle will closely track the overall economic cycle. It predicts that the supply of bachelor's and master's-level engineers in all branches of engineering will exceed the demand in every geographical area of Canada over the next 5 years. In particular, the supply and demand for bachelor's-level electrical engineers will be almost in balance in 1988 and 1991, but

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23. Ibid., p. 7.

24. The bracketed number reflects the number of individuals surveyed who reported such a job position or title.

25. Ryerson Polytechnical Institute, Program Review Process, Electrical Engineering Program, Societal Need Element, January 30, 1990, pp. 11 - 12.

26. Ibid., p. 12.

27. Ibid., p. 13.

will follow the general trends for the other years of the forecast and that the supply/demand balance will only be reached again in 1938.[28]

The Ryerson submission notes, however, that a number of individuals and organizations did not accept these findings and exp[illegible] a fundamental disagreement with the projections including the Chair of the [illegible]dian Engineering Manpower Board, and a committee of the Canadian Council of Professional Engineers (CCPE).

Ryerson also indicates that articles published in the Institute of Electrical & Electronic Engineers' (IEEE) publication "The Institute" during 1987 and 1988, raised concerns of a severe U.S. shortage in the number of qualified electrical engineers throughout the 1990s. These concerns were based on projections of high demand, and the observed trend of enrolment reduction in electrical engineering programs in many North American universities since 1982. The underlying reason provided for such enrolment shifts was the seeming lack of interest in, and/or inadequate preparation of the high school graduates in the basic sciences and mathematics subjects.[29]

Finally, the Ryerson submission cites the report entitled "Science Resources Studies Highlights" published by the USA's National Science Foundation. This study suggests that 180,000 new jobs will be created in electrical and electronics engineering in the U.S.A. during the fourteen years from 1986 to 2000. This represents an almost 50% increase in the total number of jobs over 1986.[30]

Ryerson acknowledges that there are diverse views on future employment opportunities for electrical engineers, however, concludes that

> ... the fundamental dependence of a modern economy upon the electrical and electron technologies guarantees a steady demand for electrical engineering and related manpower over the long term. Electrical and electronic technologies are basic to many so called "high-tech" developments, to technologies of information transmittal and processing, to computing, to many of our consumer products, and to our manufacturing methods and production processes.[31]

A survey involving 16 companies revealed that program graduates have been employed in organizations of all sizes. With respect to specific responsibilities, the survey revealed that 69% of graduates were employed in engineering design, 56% in research and development, 38% in testing and evaluation, 25% in marketing and sales and the remainder divided between production engineering, middle management, and technical writing. Most companies indicated that degree graduates were assigned engineering-level job responsibilities exclusively (69%), 25% indicated that graduates were assigned engineering and technologist-level jobs and a modest 6% indicated that degree graduates were assigned to technologist functions only.[32]

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[28] Ibid., p. 18.

[29] Ibid., p. 19.

[30] Ibid.

[31] Ibid., p. 21.

Survey results indicated that employers considered the academic preparation and work performance of graduates to be very good and prospects for upward mobility were high.[33] The majority of respondents also indicated that graduates and employers would benefit if the program were accredited by the engineering profession.

All companies surveyed anticipated an increased demand for Ryerson BTech graduates over the next five years. CNCP, in particular, indicated that their strong demand corresponds to 50 to 100 new employees during that time period.

The applied nature of this program is completely consistent with Ryerson's role of offering programs oriented toward the practical and immediately useful. For example, all upper year students are required to undertake and complete a major thesis demonstrating the student's competence to work through the stages of research, engineering design, prototyping, testing, and evaluation. Many of the projects are based upon real product and service needs identified in the community and in industry.[34]

The PRC unanimously concluded that the Bachelor of Technology program in Electrical Engineering program meets all aspects of the societal need criterion and provides high quality applied professional education in response to student aspirations and market demands.[35]

2. Assurance of Academic Quality

A review of the academic quality of the program was conducted by Ryerson's Academic Council.

The objectives of this program are fourfold:

- to provide an accredited, high calibre, career-oriented educational experience to students intending to pursue an upwardly mobile career within the profession of electrical engineering;

- to provide students with expertise in solving practical electrical engineering problems through structured and unstructured experimental and design/synthesis work, culminating in the design and implementation of a senior year thesis project;

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[32] Ibid., p. 25.

[33] Ibid., pp. 25-27.

[34] Ibid., p. 23.

[35] Ibid., p. 33.

- to provide students with a state-of-the-art educational experience through the transfer of knowledge from the faculty to the undergraduate courses; and

- to provide society with high calibre electrical engineering professionals, who can communicate, understand the social and economic issues of today and the future, capable of life-long learning in a very fast moving field, have leadership and entrepreneurial abilities, and most importantly, capable of active contribution to the advancement of the national economy and the enrichment of society.[36]

The degree program originated with three years of diploma study plus one year of relevant work experience plus the equivalent of one year of full-time specialized studies offered primarily on a part-time basis. This model served a student market which consisted of former diploma graduates who were working full-time and saw the technology degree as a suitable means of professional development and upward mobility.

However, the demand for a full-time degree program increased and the majority of students began entering the program with Grade XIII standing. Over the years, adjustments have been made in light of the changing academic capabilities and curricular expectations of the entering student body. In 1984, Grade XIII became the formal qualification for admission.

The desire of most students to achieve formal engineering certification through the examination program of the Association of Professional Engineers of Ontario (APEO) has led to modifications to the curriculum which would help students reduce the number of APEO examinations students are required to write following graduation.

The program is now four years in duration, with a diploma option after third year, and is intended to meet the curricular requirement for engineering accreditation. The first three years consist of foundation studies in applied sciences and engineering and professional studies, with the fourth year offering advanced studies and areas of specialization. Complimentary studies in the humanities, social sciences, and economics are included in all four years of the program.

The program is well supported with respect to physical resources and equipment. Through the program's association with the Centre for Advanced Technology Education (CATE), senior students have access to state-of-the-art laboratories in fibre optics, optoelectronics, digital signal processing, robotics, lasers, and local area networks.

A report prepared by the Science and Technology Librarian on the library holdings available to support the electrical engineering program, found that the collection in general is adequate. Other observations are as follows:

- the periodical collection is good;

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36. Ryerson Polytechnical Institute, Program Review Process, Electrical Engineering Program, Academic Quality Element, January 30, 1990, pp. 2 - 3.

- the reference collection has vastly improved in the last six years;
- audiovisual materials, although improving, need to be updated;
- additional funding should be ear-marked for updated editions of titles and multiple copies; and
- that more books are needed to improve the collection in the areas of electrical lighting and electronic imaging.[37]

The Academic Standards Committee of the Ryerson Academic Council reaffirmed the academic quality of the program of studies leading to the Bachelor of Technology program in Electrical Engineering program in November 1989. The Academic Council approved the continuation of the program on academic grounds on November 7, 1989.

3. Assurance of Financial Viability

The Board of Governors of Ryerson Polytechnical Institute considered the financial viability of the Bachelor of Technology program in Electrical Engineering. After reviewing documentation pertaining to the financial soundness, program contribution to Institute overhead, financial viability data, and steady-state projections in constant dollars, on January 18, 1990, the Finance Committee endorsed the financial viability of the program. This recommendation was accepted by the Board of Governors at its meeting on January 29, 1990, at which it formally attested to the financial viability of the program.

4. Recommendation

By letter of January 30, 1990, Ryerson Polytechnical Institute informed Council that the Bachelor of Technology program in Electrical Engineering was positively reviewed with respect to its continuation on the basis of societal need, academic quality and financial viability.

The President of Ryerson, therefore, formally requested that OCUA recommend to the Minister that the program be deemed eligible for continued funding.

Council, having carefully reviewed the documentation regarding the Bachelor of Technology in Electrical Engineering program, is satisfied that Ryerson has thoroughly considered all aspects of the need, quality and financial viability of the program and that the program meets Council's criteria for continued funding eligibility.

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[37] Statement of Ryerson Library's Holdings to Support the Electrical Engineering Program, prepared by Daniel Phelan, Science & Technology Librarian, September 1989. Fax from Ryerson, 21-09-90.

Accordingly, Council *recommends to the Minister:*

OCUA 90-48

CONTINUED ELIGIBILITY OF ENROLMENT IN THE EXISTING DIPLOMA PROGRAM AND BACHELOR OF TECHNOLOGY DEGREE PROGRAM IN ELECTRICAL ENGINEERING AT RYERSON POLYTECHNICAL INSTITUTE FOR FUNDING PURPOSES

THAT enrolment in the Diploma program and Bachelor of Technology degree program in Electrical Engineering at Ryerson Polytechnical Institute continue to be deemed eligible for counting for funding purposes.

2.4 RYERSON POLYTECHNICAL INSTITUTE

Program Review Process Results
for the
Bachelor of Applied Arts Program (Fashion)
(BAA)
in accordance with
Advisory Memorandum 84-V

On January 30, 1990, Ryerson Polytechnical Institute submitted the Bachelor of Applied Arts (Fashion) program to the Ontario Council on University Affairs for a recommendation regarding the continuation of funding.

This program is offered on a diploma-degree continuum. Its objective is to prepare students for a variety of careers in fashion design and merchandising, including production, administration, management and quality control.

Council was provided with detailed internal studies conducted by Ryerson Polytechnical Institute regarding the societal need for the program, its academic quality and financial viability. The results of these studies and Council's recommendation are contained below.

1. Assurance of Societal Need

The societal need for this program was evaluated by a Program Review committee (PRC) which first met in January of 1989. The PRC consisted of 8 members drawn from business, the fashion industry, a professional association, the media and the broader academic community.

Student demand for the program appears to be very strong. The total number of qualified applicants have consistently been 5 times greater than the number of places available. Actual enrolments have steadily increased since 1986-87 from 382 students to 499 students in 1990. Projections for 1991-92 suggest continued growth to a total of 507 students enroled in the program. The PRC indicated its belief that the program will continue to attract more applicants than Ryerson's space and facilities can accommodate. Applicants come from all across Canada.

A survey of recent graduates demonstrated the wide variety of positions obtained upon program completion. Students graduating from the design option have obtained positions such as designer, pattern maker, buyer, fashion coordinator, visual merchandiser, and store owner. Graduates from the apparel management option have found employment in positions such as production managers and assistants, computer graders and lab technologists. Graduates of merchandising communication have obtained posts as designers, buyers, sales representatives, and production co-ordinators. The retail management option has led graduates into careers as buyers, production liaison officers, and store managers.

An employer survey (N=42) conducted by the Ryerson School of Fashion in December 1988 revealed that 45% of the respondents indicated a strong need for program graduates over the next three to five years. Thirty-one percent of employers surveyed indicated that they would have a moderate demand for graduates. The average number of personnel required per company was 4 over the same period with the exception of the retail sales and distribution sector which indicated that it would require 74 graduates per company. The Ryerson submission notes that the exceptionally high figure for the retail sales and distribution sector is accounted for by the multi-branch structure of most of the respondents in this category. Employers indicated little preference for four-year program degree graduates over diploma graduates. Upward mobility for Ryerson graduates was deemed to be moderate to high.

This program is unique in Canada, in that it is the only Fashion School offering a degree at the Bachelor level. The Program Advisory Committee found this program to be completely consistent with Ryerson's mandate to offer programs oriented toward the practical and immediately useful. It meets a societal need for industrial and commercial expertise in Ontario in the design, manufacturing and marketing segments of the fashion industry.

It was concluded by the majority of PRC members that the Bachelor of Applied Arts (Fashion) program met all aspects of the societal need criterion.

2. Assurance of Academic Quality

A review of the academic quality of the program was conducted by Ryerson's Academic Council.

The Bachelor of Applied Arts program in Fashion offers four areas of specialization - Apparel Design, Apparel Production Management, Merchandising Communication and Retail Management.

Individual course content has not undergone major revision since the degree proposal was made in 1986. Individual course content is reviewed annually, with minor changes resulting. The most notable changes have involved the introduction of skills in computer technology in design and merchandising courses.

Since 1986, the program has acquired additional space, however, offices for full and part-time faculty were deemed unsatisfactory due to crowding and distance from classrooms. The program employs 12 internationally-trained full-time faculty and 27 part-time industry experts.

Library holdings were deemed to be adequate to support the program, and the circulating book collection was declared to be of good quality with regard to currency and Canadian content but it was noted that all subject areas would benefit by the addition of duplicate copies. The periodical, reference and audio-visual collections were deemed to be strong components of the available library resources.[38]

The report of the Academic Council notes that additional computer software and hardware, currently not available, will be required to keep up with the technology which is considered standard within the fashion industry.[39] It is expected that by 1991, the School of Fashion will require the implementation of 12 workstations, using either IBM or Apple technology in order to appropriately support the computing components of the curriculum.

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[38] Ryerson Polytechnical Institute, Program Review Process, Fashion Program, Academic Quality Element, January 30, 1990, "Ryerson Library holdings supporting The School of Fashion Program" March 1, 1989, p. 1.

[39] Ibid., "School of Fashion Program Review Report: Evaluation of Ryerson Computing and Communications Services, p. 7.

The Academic Standards Committee of the Ryerson Academic Council reaffirmed the academic quality of the program of studies leading to the Bachelor of Applied Arts (Fashion) in November 1989. The Academic Council approved the continuation of the program on academic grounds on November 7, 1989.

3. Assurance of Financial Viability

The Board of Governors of Ryerson Polytechnical Institute considered the financial viability of the Bachelor of Applied Arts (Fashion) program. After reviewing documentation pertaining to the financial soundness, program contribution to Institute overhead, financial viability data, and steady-state projections in constant dollars, on January 18, 1990, the Finance Committee endorsed the financial viability of the program. This recommendation was accepted by the Board of Governors at its meeting on January 29, 1990, at which it formally attested to the financial viability of the program.

4. Recommendation

By letter of January 30, 1990, Ryerson Polytechnical Institute informed Council that the Bachelor of Applied Arts (Fashion) program was positively reviewed with respect to its continuation on the basis of societal need, academic quality and financial viability.

The President of Ryerson, therefore, formally requested that Council recommend to the Minister that the Bachelor of Applied Arts (Fashion) program be deemed eligible for continued funding.

Council, having carefully reviewed the documentation regarding the Bachelor of Applied Arts (Fashion) program, is satisfied that Ryerson has thoroughly considered all aspects of the need, quality and financial viability of the program and that the program meets Council's criteria for continued funding eligibility.

Accordingly, Council *recommends to the Minister:*

> *OCUA 90-49*
> *CONTINUED ELIGIBILITY OF ENROLMENT IN THE EXISTING DIPLOMA AND BACHELOR OF APPLIED ARTS (FASHION) DEGREE PROGRAM AT RYERSON POLYTECHNICAL INSTITUTE FOR FUNDING PURPOSES*
>
> *THAT* enrolment in the Diploma program and Bachelor of Applied Arts (Fashion) degree program at Ryerson Polytechnical Institute continue to be deemed eligible for counting for funding purposes.

2.5 RYERSON POLYTECHNICAL INSTITUTE

Program Review Process Results
for the
Bachelor of Applied Arts Program (Journalism)
(BAA)
in accordance with
Advisory Memorandum 84-V

On January 30, 1990, Ryerson Polytechnical Institute submitted the Bachelor of Applied Arts (Journalism) program to the Ontario Council on University Affairs for a recommendation regarding the continuation of funding.

This program is currently three years in duration. Since 1972, Ryerson has also offered a two-year fast-track program for university graduates. Both programs result in a Bachelor of Applied Arts degree in Journalism. The program review and evaluation process documentation details the case for the conversion of the existing three year program into a four year program.

Council was provided with detailed internal studies conducted by Ryerson Polytechnical Institute regarding the societal need for the program in a modified format, its academic quality and financial viability. The results of these studies and Council's recommendation are contained below.

1. Assurance of Societal Need

The societal need for this program was evaluated by a Program Review Committee (PRC) which first met in February 1989. The PRC consisted of seven members drawn from the print and television news media, and from the fields of advertising, public opinion research, and academia.

Student demand for this program has been very strong. Ryerson's submission indicates that there are routinely over three applicants for each available space in the three-year undergraduate program and over ten applicants per available space in the two-year program for university graduates. Specifically, in 1988, there were 656 applicants for 131 spaces in the three-year program and 402 applicants for 30 spaces available in the two-year program for university graduates.[40] Application trends show a growing preference for the two-year post-university program.[41] The PRC in fact recommended that the Ryerson School of Journalism consider expansion of the program to accommodate student demand for journalism education, particularly in the two-year, post-university degree program, since demand for this program is expected to continue to increase. The total number of applications for the three-year program is gradually diminishing, although the student demand for this program will remain more than sufficient to fill the program. The data considered by Ryerson suggests that the societal need for graduates will remain stable in the future. However, the Ryerson submission states:

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[40] Ryerson Polytechnical Institute, Program Review Process, Journalism Program, Societal Need Element, Memorandum from Michael Adams, Chairman, Program Review Committee to John Miller, Chairman Ryerson School of Journalism, April 17, 1989, p. 1.

[41] Ryerson Polytechnical Institute, Program Review Process, Journalism Program, Academic Quality Element, January 30, 1990, Section 3, "Enrolment Statistics".

> Over the past four years, it has become clear that Ryerson's School of Journalism must make changes in the structure and content of its curriculum if it is to maintain a leadership role in journalism education. We have ... identified changes that are urgently needed to consolidate the strengths of the program and to continue to produce graduates who will be in high demand in a changing industry.[42]

The revised program as proposed would extend the option of choosing specialties to the fast-track program for university graduates and would alleviate the excessive course load in the third year of the undergraduate program which caused a large percentage of students to stay on for a fourth year simply in order to complete the degree requirements.

A survey of Ryerson graduates indicated that there are a wide variety of careers available to them and that there is a strong societal demand for their skills. Although surveys conducted by the Canadian Daily Newspaper Publishers Association indicated that daily newspapers alone could absorb over 45% of journalism students produced in Canada, only 40% of Ryerson's 1984-85 graduating class responding to the survey were employed by daily newspapers, community newspapers, magazines or in broadcasting or book publishing. The majority of graduates were employed in a wide-range of non-traditional journalistic occupations including private public relations, marketing and advertising firms (36%) and government communications and freelance writing. Many Ryerson graduates have become highly regarded members of the journalistic industry. Graduates include the Chief Executive Officer of Thompson Newspapers Ltd., Brian Slaight; the Publisher of the Ottawa Sun, Hartley Steward; Stephen Leacock Award for Humour winner, Ray Guy; broadcasters Arthur Black, Paul Workman, Wendy Mesley, and Susan Harada; and magazine editors Don Obe and Stephen Trumper.[43]

The PRC was satisfied that the unique combination of liberal arts courses and practical journalism training ensures that the program does not unnecessarily duplicate offerings proposed at other Ontario post-secondary institutions. It was noted that the four year format would enhance Ryerson's ability to offer a more appropriate number of practical journalism courses and academic subjects on a rationalized schedule. Employers and professional associations contributed comments which indicated that the Ryerson program was highly regarded and was seen to be meeting a societal need for journalism graduates.

The existing program was considered to be completely consistent with Ryerson's mandate to offer programs oriented toward the practical and immediately useful. It was noted that Ryerson was ideally situated to offer this program, in that it is located in the media capital of Canada. The PRC recommended that Ryerson should take further steps to link its programs to the needs of employers through the development of a five to ten year strategic business plan which would also involve the development of additional sources of funding for the program.

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[42] Ibid., "Section 4: Planned Curriculum Changes", p. 1.

[43] Ryerson Polytechnical Institute, Program Review Program, Journalism Program, Societal Need Element, "Employment Success of Graduates".

It was unanimously concluded by the Program Review Committee that the Journalism program satisfied all aspects of the societal need criterion but would better meet the societal demands placed on graduates by adopting the proposed four year curriculum.

2. Assurance of Academic Quality

A review of the academic quality of the program was conducted by Ryerson's Academic Council.

The objectives of this program are to educate journalists in the awareness, skills, and attitudes needed to successfully work in leading Canadian news and public affairs media; to offer education in the liberal arts and social sciences that is both useful to journalism and broadly relevant to Canadian and other cultures; to instill in journalism students a sense of ethics and fair mindedness; enable students to learn through actual practice in media production with careful coaching by instructors; to encourage independent thinking about contemporary society; and to cultivate the ability to articulate that thinking and to take advantage of Ryerson's unique mid-city location to allow students to be aware of and use civic, metropolitan and legislative assemblies, their courts and advisory boards, etc.

Students in the undergraduate program take a common first year and specialize in either newspaper, magazine or broadcast journalism for the duration of their program.

A number of changes to the curriculum have been recommended for both the standard program and the fast-track post-university degree program. With respect to the standard program it has been proposed that:

- the length of the program be increased from three to four years in duration;
- that academic offerings be strengthened in the first three years;
- that the fourth year of the program be reserved for journalism instruction;
- that the standard program and the fast-track program merge in the final year;
- that first year admission be decreased from 130 to 100 students in order to provide more access to the two-year fast-track program without flooding industry with more graduates than it could reasonably hope to accommodate;
- that the study of French become mandatory;

- that students are able to choose their own academic fields of study; and
- that additional professionally-related courses be added to the standard program.[44]

With respect to the fast-track program, it was proposed that:

- the two-year length of the program be retained;
- that first-year admissions be increased from 30 to 60 students;
- that professional journalism courses be upgraded and increased in number;
- that additional professionally-related courses be added;
- that the content of courses offered be integrated and rationalized;
- that the streaming option be extended to fast-track students; and
- that the fast-track and standard programs be merged in the final year.[45]

These modifications would increase the size of the School of Journalism from a total enrolment of 408 students to 463 students - a number Ryerson considers manageable. It would better meet the needs of students by providing a more appropriate mix of liberal studies and professional and professionally-related courses as well as respond to market demands for journalists with both a professional and broad liberal studies education.

The Program Review Committee also indicated that it "wholeheartedly endorses the expansion of the undergraduate program from three to four years."[46]

In 1986, the facilities for this program were so inadequate as to be condemned by its professional advisory committee.[47] Since that time Ryerson has been gradually improving their equipment and will be moving into a new Communications Centre facility in 1991. A series of private donations and grants have enabled the School of Journalism to obtain a desktop publishing system, obtain a number of PCs for faculty and student use and expand broadcast facilities. Ryerson has anticipated capital and equipment needs from 1989 to 1991 totalling approximately $2,290,525.00.

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[44] Ryerson Polytechnical Institute, Program Review Process, Journalism Program, Societal Need Element, "Summary of Proposals" January 30, 1990, p. 4.

[45] Ibid.

[46] Ibid., Memorandum from Michael Adams, Chairman, Program Review Committee to John Miller, Chairman Ryerson School of Journalism, April 17, 1989, p. 2.

[47] Ryerson Polytechnical Institute, Program Review Process, Journalism Program, Academic Quality Element, "Section 9, Facilities and Equipment", January 30, 1990, p. 1.

A report conducted by the Acting Director of the Learning Resources Centre and Communication Arts Library concluded that the School of Journalism's library collection is "small but very relevant for the practical training which is the current focus of the Journalism program" and that the "periodical collection has a good concentration of practical, trade magazines..."[48] The report noted that the "[s]pecial clipping files and the availability of the Ryerson Archives are particular strengths of library support."[49] However, the report also indicated that "[s]erious consideration should be given to increasing the student to book ratio" and that the low level of support for the magazine program should be addressed.[50]

In September 1989, the Academic Standards Committee of the Ryerson Academic Council reaffirmed the academic quality of the program of studies leading to the Bachelor of Applied Arts (Journalism) program and endorsed the need for a four year program of study to more effectively meet the needs of society and the program's objectives. On October 3, 1989, the Academic Council approved the proposed revisions leading to a four year undergraduate program and the continuation of the program on academic grounds.

3. Assurance of Financial Viability

The Board of Governors of Ryerson Polytechnical Institute considered the financial viability of the Bachelor of Applied Arts (Journalism) program. After reviewing documentation pertaining to financial soundness, program contribution to Institute overhead, financial viability data, and steady-state projections in constant dollars, on January 18, 1990, the Finance Committee endorsed the financial viability of the program. This recommendation was accepted by the Board of Governors at its meeting on January 29, 1990, at which it formally attested to the financial viability of the program in the format which included the proposed curricular modifications.

4. Recommendation

By letter of January 30, 1990, Ryerson Polytechnical Institute informed Council that the Bachelor of Applied Arts (Journalism) program was positively reviewed with respect to its continuation on the basis of societal need, academic quality, and financial viability.

The President of Ryerson, therefore, formally requested that Council recommend to the Minister that the Bachelor of Applied Arts (Journalism) program be deemed eligible for continued funding in the new four year program format. It was noted that the proposed modifications had also received the approval and support of Ryerson's student body, the faculty and the professional advisory committee.

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[48] Ibid., Ryerson Library Holdings Supporting the School of Journalism Program, April 14, 1989, "Summary of the Relevant Library Resources", January 30, 1990.

[49] Ibid.

[50] Ibid.

Council, having carefully reviewed the documentation regarding the program in its proposed new format, is satisfied that Ryerson has thoroughly considered all aspects of the need, quality and financial viability of the program and that the program as proposed in the four year format meets Council's criteria for continued funding eligibility.

Accordingly, Council *recommends to the Minister:*

OCUA 90-50

CONTINUED ELIGIBILITY OF ENROLMENT IN THE EXISTING BACHELOR OF APPLIED ARTS (JOURNALISM) PROGRAM IN THE PROPOSED NEW FOUR-YEAR CURRICULUM FORMAT AT RYERSON POLYTECHNICAL INSTITUTE FOR FUNDING PURPOSES

THAT enrolment in the Bachelor of Applied Arts (Journalism) program in the proposed new four-year curriculum format at Ryerson Polytechnical Institute continue to be deemed eligible for counting for funding purposes.

2.6 RYERSON POLYTECHNICAL INSTITUTE

Program Review Process Results
for the
Bachelor of Technology Program (Laboratory Science)
(BTech)
in accordance with
Advisory Memorandum 84-V

On January 30, 1990, Ryerson Polytechnical Institute submitted the Bachelor of Technology in Laboratory Science program to the Ontario Council on University Affairs for a recommendation regarding the continuation of funding.

The Laboratory Science program is offered by the Department of Applied Chemical and Biological Sciences. It comprises four years of study following Grade 13/OAC completion with a diploma option after third year. Its objective is to prepare students for a variety of careers in chemistry, food science, the biological sciences, and related fields.

Council was provided with detailed internal studies conducted by Ryerson Polytechnical Institute regarding the societal need for the program, its academic quality and financial viability. The results of these studies and Council's recommendation are contained below.

1. Assurance of Societal Need

The societal need for this program was evaluated by a Program Review Committee (PRC) which was appointed in November of 1988. The PRC consisted of eight members drawn from the research and management corps of private and public sector research laboratories, from industry, and from academia.

Student demand for the program declined between 1984 and 1988 from 393 total applicants (of which 213 were considered qualified) to 223 applicants in 1988 (of which 158 were considered qualified). However, applications remain sufficient to fill the maximum of 70 available places in the first year of the program.[51] The declining enrolment trend is typical of mathematics, and physical and applied science programs generally, and is in part a reflection of the fewer number of high school students who have studied the prerequisite courses in the mathematics and physical sciences.

Enrolment statistics indicate that first year enrolment has averaged 61 students per year between 1982-83 and 1989-90. Total enrolment over the same period has averaged 178 students in all four years of the program. Educational background statistics reveal that 71% of the first year students enroled in the program come directly from Grade 13; 13.6% have some university experience; 3% have some college experience and a mere 1.5% enter the program with a university degree.[52]

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[51] Ryerson Polytechnical Institute, Program Review Process, Laboratory Science Program, Academic Quality Element, "Students Presenting Ontario Academic Credits (OAC's)".

Surveys conducted by Ryerson indicated that over 90 per cent of program graduates found employment in their field within three months of graduation. This program produced its first graduates in 1971, and employment opportunities have proven to be diverse. Most recent graduates found posts directly related to the disciplines of chemistry, food science, or the biological sciences within government or industrial laboratories. Examples of actual positions held by graduates include research technician, laboratory technician, dietary aide, chemical analyst, quality control analyst, product development technologist, phlebotomist, microbiologist, food and drug inspector, sales representative, research assistant, forensic technologist, nuclear cardiology technologist, radiation control technologist, health inspector, and a variety of other related posts. After a few years of work experience, a number of alumni were found to have moved into careers in insurance, banking, financial planning, management, sales and self-employment.

It is expected that demand for graduates in chemistry, molecular biology, biochemistry and biotechnology will exceed supply in the next decade. The Natural Sciences and Engineering Research Council of Canada has made widely known their concern over the current and projected lack of qualified scientific personnel in Canada and the implications of this for Canadian economic productivity and competitiveness.[53] The academic diversity and interdisciplinary nature of the Laboratory Science program enhances the employability of graduates as society places more emphasis upon the issues of environmental protection, toxic waste disposal, waste management, water and air pollution, new pharmaceuticals, genetic engineering and chemical production in the global context. An employer survey conducted by Ryerson in 1988-89 confirmed that employers hire Ryerson graduates primarily due to the mix of practical and academic training they receive.

A comparison between Ryerson's Laboratory Science program which is accredited by the Canadian Society for Chemistry (CSC), a constituent society of the Chemical Institute of Canada, and other accredited programs in Canada revealed that all other programs carried the designation Bsc, and that there were no programs similar to the BTech Laboratory Science degree in terms of courses offered or curriculum balance.[54]

The Program Review Committee found this program to be completely consistent with Ryerson's mandate to offer programs oriented toward the practical and immediately useful, and found it meeting a societal need for scientific expertise in Ontario in the private and public sectors.

It was concluded by the PRC members that the Bachelor of Technology program in Laboratory Science met all aspects of the societal need criterion.

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[52] Ibid., "Educational Background First-year Students, October 87".

[53] Ryerson Polytechnical Institute, Program Review Process, Laboratory Science Program, Societal Need Element, January 30, 1990, Quoting from Contact, Vol. 14, No. 2, Natural Sciences and Engineering Research Council, Ottawa, 1989.

[54] Ibid., Section 3.3 "Accreditation and Comparison with Other University Programs".

2. Assurance of Academic Quality

A review of the academic quality of the program was conducted by Ryerson's Academic Council.

Six objectives have been defined for the program as follows:

- to provide students with the requisite laboratory skills consistent with current industrial practice;
- to educate students to a suitable marketable level of academic and practical competence;
- to develop in students a competence in scientific fundamentals;
- to provide students with skills in two major areas - chemistry and the life sciences;
- to provide degree graduates with additional skills in the above two areas through special emphasis areas selected by the student; and
- to develop excellence in oral and written communication.[55]

The first year of the program introduces students to scientific fundamentals and laboratory techniques. A course in liberal studies is required in each year of the program. In the second year, the underpinnings of chemical and biological fundamentals are further developed. Experimental methods and project design flow from required course work. At the end of second year, students are placed in career-related summer employment for salary and academic credit. The focus of third year is on laboratory work and the development of professionally current technological expertise in all aspects of modern chemical analysis. At the end of third year, students participate in a summer co-op term for salary and academic credit. In fourth year, courses in biotechnology, food process science, and pharmaceutical chemistry introduce students to scientifically specialized material now used in industry. Elective offerings enable students to increase or broaden their knowledge in chemistry, food science, radiochemistry and biotechnology.[56] This program has been fully accredited by the Chemical Institute of Canada since 1985.

The co-op element of the program was initiated in 1976 on a non-salaried, part-time basis during the school year. It was revised in 1988 to make salaried positions available to full-time students during the summer months.

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[55] Ryerson Polytechnical Institute, Program Review Process, Laboratory Science Program, Academic Quality Element, Point 2.6 "Program Objectives Laboratory Science", January 30, 1990.

[56] Ibid., Point 2.1 "The Laboratory Science Program - Curriculum Overview".

Companies currently participating in the co-op program in Laboratory Science include Allelix, Benjamin Moore, Canada Packers, CIL Inc., Gay Lea, Novopharm, Redpath Sugars, Signal, Metro Toronto, and Ministries of the Environment, Health and Labour.[57]

The report of the Academic Council indicates that students have access to most types of equipment, instruments, and related accessories that are typical of university laboratories in the chemical sciences, the biological sciences, food sciences, and chemical instrumentation/spectroscopy.[58]

Faculty are actively involved in research and publication. Four faculty members are currently involved in research projects in collaboration with nearby hospitals and with corporate partners. One such partner is Integrated Protein Technologies (IPT), a company located on campus which specializes in protein sequencing analysis and peptide synthesis.

The Academic Standards Committee of the Ryerson Academic Council reaffirmed the academic quality of the program of studies leading to the Bachelor of Technology program in Laboratory Science in November 1989. The Academic Council approved the continuation of the program on academic grounds on November 7, 1989.

3. Assurance of Financial Viability

The Board of Governors of Ryerson Polytechnical Institute considered the financial viability of the Bachelor of Technology program in Laboratory Science. After reviewing documentation pertaining to the financial soundness, program contribution to Institute overhead, financial viability data, and steady-state projections in constant dollars, on January 18, 1990, the Finance Committee endorsed the financial viability of the program. This recommendation was accepted by the Board of Governors at its meeting on January 29, 1990, at which it formally attested to the financial viability of the program.

4. Recommendation

By letter of January 30, 1990, Ryerson Polytechnical Institute informed Council that the Bachelor of Technology program in Laboratory Science had been positively reviewed with respect to its continuation on the basis of societal need, academic quality and financial viability.

The President of Ryerson, therefore, formally requested that Council recommend to the Minister that the Bachelor of Technology program in Laboratory Science be deemed eligible for continued funding.

Council, having carefully reviewed the documentation regarding the Bachelor of Technology program in Laboratory Science, is satisfied that Ryerson has thoroughly considered all aspects of the need, quality and financial viability of the

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57. Ibid., Point 8.4 "Participating Companies - Summer 1988".

58. Ibid., Point 2.9 "Departmental Equipment Resources".

program and that the program meets Council's criteria for continued funding eligibility.

Accordingly, Council *recommends to the Minister:*

OCUA 90-51
CONTINUED ELIGIBILITY OF ENROLMENT IN THE EXISTING DIPLOMA PROGRAM AND BACHELOR OF TECHNOLOGY DEGREE PROGRAM IN LABORATORY SCIENCE AT RYERSON POLYTECHNICAL INSTITUTE FOR FUNDING PURPOSES

THAT enrolment in the Diploma program and Bachelor of Technology degree program in Laboratory Science at Ryerson Polytechnical Institute continue to be deemed eligible for counting for funding purposes.

2.7 RYERSON POLYTECHNICAL INSTITUTE

Program Review Process Results
for the
Diploma in Landscape Architectural Technology
in accordance with
Advisory Memorandum 84-V

On January 30, 1990, Ryerson Polytechnical Institute submitted the diploma program in Landscape Architectural Technology to the Ontario Council on University Affairs for a recommendation regarding the continuation of funding.

The three-year diploma in Landscape Architectural Technology is founded on the assumption that theory evolves from the practice of landscape architecture. The program introduces graduates to the complete spectrum of the profession with specific emphasis on urban, suburban and exurban situations at the project level. This program has been in place since 1969.

Council was provided with detailed internal studies conducted by Ryerson Polytechnical Institute regarding the societal need for the program, its academic quality and financial viability. The results of these studies and Council's recommendation are contained below.

1. Assurance of Societal Need

The societal need for this program was evaluated by a Program Review Committee (PRC) which was established on March 22, 1986. The PRC was composed of 8 members drawn from private landscape contracting firms, consulting firms, university departments of landscape architecture and development firms. Members were selected for their accumulated experience which has gained for them national and international recognition in their own and related fields.

The three-year diploma program in Landscape Architectural Technology was created in order to educate industry-oriented students who would play professional and semi-professional roles in landscape construction and design organizations.

Diploma program graduates are generally employed as follows: 30% by government agencies, 30% by contractors, 30% by landscape architectural offices and 10% attend graduate schools in the USA.

Examples of positions held by graduates include that of designer within public and private firms, parks planner, contractor, landscape architect, salesperson, site supervisor, environmental designer, project manager and contract administrator.[59]

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[59] Ryerson Polytechnical Institute, Response to OCUA Request for Additional Information, Letter of October 10, 1990, Attachment E-1.

some graduates start their own landscape design/maintenance/construction business.[60]

It was noted that current employment opportunities for graduates are excellent and are expected to keep pace with the development of the economy and growing public concern with the environment.[61]

In the view of the PRC, industry is very satisfied with the present program and would not wish to see it diminished in importance. The rapid growth being experienced in the landscape industry in Ontario, combined with the lack of new European recruits to replace the previous generation as they retire, will create increasing demand for graduates of the existing program.

In the opinion of the PRC, the increasing tendency toward specialization within the profession should also lead to an increase in employment opportunities.

A survey of corporations and government agencies, conducted in 1985, established that the market sought graduates with a "blending of practical skills and theoretical knowledge" in the landscape architecture personnel hired, and that employers were slightly more interested in hiring graduates from Ryerson than graduates from universities and graduate schools. Employers expressed a moderate demand for program graduates in the future.[62]

A more recent survey (December 1989) indicated that future demand for program graduates was considered to be strong by 40% of the respondents, medium by 29%, light by 17% while 6% of those surveyed indicated that they anticipated no demand.[63]

Student demand for the diploma program has steadily increased over the past five years from 102 applicants in 1986 to 158 applicants in 1990. First year enrolment has increased from 30 students in 1985-86 to 38 students in 1989-90 while total enrolment has grown from 84 to 92 students over the same period.[64]

The Program Review Committee found this program to be consistent with Ryerson's mandate to offer programs oriented toward the practical and immediately useful. It was the judgement of the PRC Committee that the program will satisfy a societal need in terms of anticipated social, economic and market needs in Canada so long as certain curriculum modifications are made which include the addition of new management-oriented courses.[65]

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[60] Ryerson Polytechnical Institute, Program Review Process, Landscape Architecture Program, Academic Quality Element, Appendix C, "Report of the Landscape Advisory Committee Meeting Convened as a Component of the Program Review Evaluation Process to Review the Program in Landscape Architecture", January 30, 1990, p. 3.

[61] Ibid., p. 2.

[62] Ryerson Polytechnical Institute, Program Review Process, Landscape Architecture Program, Societal Need Element, January 30, 1990, p. 12.

[63] Ryerson Polytechnical Institute, Program Review Process, Landscape Architecture Program, Financial Viability Element and Summary of Societal Need and Academic Quality Elements, "Summary of Academic Quality Report, Relevant Sections of Report of Academic Standards Committee and Minutes of Academic Council", January 30, 1990, p. 6.

[64] Ryerson Polytechnical Institute, Response to OCUA Request for Additional Information, Letter of October 10, 1990, Attachment A-2.

It was unanimously concluded by members of the PRC Committee that the diploma program in Landscape Architectural Technology met all aspects of the societal need criterion.

2. Assurance of Academic Quality

A review of the academic quality of the program was conducted by Ryerson's Academic Council.

The objectives of the diploma program are to meet the demands of both the landscape architecture profession and the industry. Most of the early graduates sought careers in the construction and\or horticultural industries. Diploma graduates may obtain Associate Membership with the Ontario Association of Landscape Architects (OALA) by demonstration of professional interest and appearance for an interview at the discretion of the Examining Board. Full membership in the OALA may be obtained after a seven year period in the OALA Professional Development Program.[66]

Faculty and staff resources are sufficient to support the existing diploma program.

The report of the Academic Council included a statement from the Acting Director of the Learning Resources Centre, indicating that the existing library collection of books, periodicals and audio-visual materials were adequate to support the diploma program in Landscape Architecture. However, it was noted that the collection would benefit from more titles, an increased duplication of individual titles, a wider range of periodical titles and more films and videotapes. The report also noted that the in-depth research material and periodicals were adequate.[67]

As a supplement to the library resources, the Department has a Research and Documentation Centre containing standard works of reference, references with statutory import such as building codes, by-laws and zoning plans, technical literature, a limited section of periodicals in landscape architecture and architecture and student theses in architectural science and comparable major projects of landscape architectural technology students.

The Academic Council describes the facilities for this program as excellent, noting that the building which houses the Department of Architectural Science and Landscape Architecture was designed expressly for the needs of this Department. It includes studio/lab space, classrooms, darkrooms, a greenhouse, computing facilities, a work-shop for model building, and a space designed expressly for student presentations and continuing exhibitions of student work. Use of an amphitheatre is also available to the program.

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[65] Ryerson Polytechnical Institute, Program Review Process, Landscape Architecture Program, Societal Need Element, Section 5, "Assessment of Program Structure", January 30, 1990, p. 7.

[66] Ryerson Polytechnical Institute, Landscape Architecture Program, Academic Quality Element, January 30, 1990, p. 6.

[67] Ibid., Appendix B: "Ryerson Library Holdings Supporting the Landscape Architecture Program", p. 8.

The Academic Standards Committee of the Ryerson Academic Council reaffirmed the academic quality of the program of studies leading to the diploma program in Landscape Architectural Technology in December of 1989. The Academic Council approved the continuation of the diploma program on academic grounds on January 9, 1990.

3. Assurance of Financial Viability

The Board of Governors of Ryerson Polytechnical Institute considered the financial viability of the diploma program in Landscape Architectural Technology. After reviewing documentation pertaining to financial soundness, program contribution to Institute overhead, financial viability data and steady-state projections in constant dollars, on January 18, 1990, the Finance Committee endorsed the financial viability of the program. This recommendation was accepted by the Board of Governors at its meeting on January 29, 1990, at which it formally attested to the financial viability of the program.

4. Recommendation

By letter of January 30, 1990, Ryerson Polytechnical Institute informed Council that the diploma program in Landscape Architectural Technology had been positively reviewed with respect to its continuation on the basis of societal need, academic quality and financial viability.

The President of Ryerson, therefore, formally requested that Council recommend to the Minister that the diploma program be deemed eligible for continued funding.

Council, having carefully reviewed the documentation regarding the diploma program, is satisfied that Ryerson has thoroughly considered all aspects of the need, quality and financial viability of the program and that it meets Council's criteria for continued funding eligibility.

Accordingly, Council *recommends to the Minister:*

OCUA 90-52
CONTINUED ELIGIBILITY OF ENROLMENT IN THE EXISTING DIPLOMA PROGRAM IN LANDSCAPE ARCHITECTURAL TECHNOLOGY AT RYERSON POLYTECHNICAL INSTITUTE FOR FUNDING PURPOSES

THAT enrolment in the diploma program in Landscape Architectural Technology at Ryerson Polytechnical Institute continue to be deemed eligible for counting for funding purposes.

2.8 RYERSON POLYTECHNICAL INSTITUTE

Program Review Process Results
for the
Diploma in Metallurgical Technology
in accordance with
Advisory Memorandum 84-V

On January 30, 1990, Ryerson Polytechnical Institute submitted the Diploma program in Metallurgical Technology to the Ontario Council on University Affairs as required under the Ryerson Program Review Process.

This program failed to satisfy the conditions necessary to justify its continuation, primarily on academic grounds. Council was therefore provided with a summary of the internal studies conducted by Ryerson Polytechnical Institute which led to the decision to terminate this program.

A summary of the results of Ryerson's internal review and Council's recommendation are contained below.

1. Assurance of Societal Need

By memorandum of November 3, 1989, the Dean of the Faculty of Technology formally requested that Ryerson Polytechnical Institute terminate the three-year diploma program in Metallurgical Technology.

This recommendation was based on evidence of a lack of student demand and societal need for program graduates:

> In the early part of this decade the demand for such graduates by business and industry subsided significantly and low enrolments in Metallurgical programs across post-secondary sectors indicated that there was excess capacity for this specialty.
>
> In response to this, Ryerson stopped admitting students into the three-year diploma in Metallurgy Technology program in 1985...[68]

It was also noted that the last program graduates received their diploma in 1988.

The Department of Mechanical Engineering unanimously endorsed the program closure, indicating that a materials option would be developed within Mechanical Engineering. The development of this option would enable Ryerson to rationalize its offerings within an interdisciplinary context which recognizes the development of a variety of new materials for manufacturing, in addition to the study of metallurgy as traditionally defined.

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[68] Ryerson Polytechnical Institute, Program Review Process, Metallurgical Technology Program, Financial Viability Element and Summary of Societal Need and Academic Quality Elements, January 30, 1990, Memorandum from Dr. W.E. White, Dean, Faculty of Technology, to Mr. A. Wargo, November 3, 1989.

2. Assurance of Academic Quality

On December 5, 1989, the Academic Council of Ryerson Polytechnical Institute approved a motion to terminate the Metallurgical Technology Diploma program on the grounds that there was no longer an academic rationale for a discrete program of study in this field.

3. Assurance of Financial Viability

On January 18, 1990, the Ryerson Finance Committee recommended to the Board of Governors that the Diploma in Metallurgical Technology not be recommended as financially viable in view of the lack of student enrolment.

At its meeting of January 29, 1990, The Board of Governors of Ryerson Polytechnical Institute reviewed the financial viability of the program in terms of financial soundness, program contribution to Institute overhead and other data and found it not to be financially viable.

4. Recommendation

By letter of January 30, 1990, Ryerson Polytechnical Institute informed Council that for the reasons indicated above, the Diploma in Metallurgical Technology was not recommended for continued funding and requested that Council formally terminate funding eligibility for the program.

Council, having carefully reviewed the documentation regarding the program, is satisfied that Ryerson has thoroughly considered all aspects of the need, academic quality and financial viability of the program and concludes that the program does not meet Council's criteria for continued funding eligibility.

Accordingly, Council *recommends to the Minister:*

OCUA 90-53
CONTINUED ELIGIBILITY OF ENROLMENT IN THE EXISTING DIPLOMA PROGRAM IN METALLURGICAL TECHNOLOGY AT RYERSON POLYTECHNICAL INSTITUTE FOR FUNDING PURPOSES

THAT enrolment in the Diploma program in Metallurgical Technology at Ryerson Polytechnical Institute be deemed ineligible for counting for funding purposes.

3.0 Proposed New Degree Designations for Ryerson Polytechnical Institute

Council accepts the Academic Advisory Committee's advice with regard to Ryerson Polytechnical Institute's request for authority to grant the degree designation Bachelor of Social Work (BSW) (see Appendix A) and the degree designation Bachelor of Engineering (BEng) in Electrical Engineering (see Appendix B).

Accordingly, Council *recommends to the Minister:*

OCUA 90-54
AUTHORITY FOR RYERSON POLYTECHNICAL INSTITUTE TO GRANT THE BACHELOR OF SOCIAL WORK (BSW) DEGREE DESIGNATION

THAT Ryerson Polytechnical Institute be granted the authority to offer the Bachelor of Social Work (BSW) degree designation.

OCUA 90-55
AUTHORITY FOR RYERSON POLYTECHNICAL INSTITUTE TO GRANT THE BACHELOR OF ENGINEERING (BEng) DEGREE DESIGNATION IN ELECTRICAL ENGINEERING

THAT Ryerson Polytechnical Institute be granted the authority to offer the Bachelor of Engineering (BEng) degree designation in Electrical Engineering.

Dr. H.V. Nelles,
Chairman

December 14, 1990

Appendix A

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Request for Approval of the Use of the Degree Designation Bachelor of Social Work

Ryerson Polytechnical Institute

During the summer of 1990, Council referred a request for the authority to grant the Bachelor of Social Work degree from Ryerson Polytechnical Institute to its Academic Advisory Committee for consideration.

The Committee was asked to provide specific advice to Council on the following issues:

- whether or not the degree designation reflects program content;

- whether or not the degree designation reflects and enhances Ryerson's differentiated role; and

- on the suitability of the proposed change in degree designation.

The Committee's findings on these points are summarized below.

1. Degree Designation Reflective of Program Content

Ryerson presently awards a Bachelor of Applied Arts (Social Work) degree for its undergraduate-level social work program. The Committee notes that the program has been fully accredited by the Canadian Association of Schools of Social Work (CASSW) since 1982 and was reaccredited in 1988, meeting the revised standards of the Association. Mandatory reaccreditation occurs every seven years.

Based on this accreditation record, the Committee is, therefore, assured that the program content and requirements for field experience are consistent with all other accredited Bachelor of Social Work programs offered in Canada.

2. Degree Designation Reflects and Enhances Ryerson's Differentiated Role

The Committee did not believe that the change to a Bachelor of Social Work degree designation would in any way detract from the applied focus of the institution, nor would this involve any modification in the offering of the existing program.

The Committee notes that the proposed change was supported by the Ontario Association of Professional Social Workers, the Ontario Deans and Directors of Social Work, and the Council of Ontario Universities as well as Ryerson's School of

Social Work Faculty, School of Social Work School Council, and School of Social Work Advisory Committee.

3. Suitability of the Proposed Change in Degree Designation

In determining the suitability of the proposed change, the Committee reviewed the results of Ryerson's survey of alumni, employers, and Deans and Directors of Social Work from across Canada.

Although the majority of alumni respondents were gainfully employed within the field of social work, and over 45% of these had completed master's degrees (most often in Social Work), graduates insisted that employers, graduate school admission officers and others do not recognize the BAA (Social Work) program as an accredited program in Social Work, often assuming that it is a general arts program with some social work content.[1]

A survey of employing agencies revealed no apparent distinction between the job descriptions, salary, level of responsibility, or field of service of BSW and BAA graduates.[2] However, 28.7% of program graduates felt that the BAA designation had hurt them both in the areas of hiring and job promotion.[3]

Employers were highly supportive of the proposed designation change for a variety of reasons:

- to provide consistency with other BSW degrees;
- to make the application process more equitable since not all human resource personnel were familiar with the BAA (Social Work) designation;
- to confirm that the degree program is at the university level;
- to give graduates more confidence in their degree; and
- to clarify the confusion within the community about the BAA designation.[4]

The Deans and Directors of graduate schools of social work across Canada also supported the change to the BSW designation. This group indicated that the BSW was cited as the common social work degree designation in North America and most other parts of the world, and that the change would eliminate any difficulties which might be encountered due to lack of recognition of the BAA (Social Work) degree.[5]

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[1] Ryerson Polytechnical Institute, School of Social Work, Proposal for Degree Designation Change, Submitted by Dr. Ellen Sue Mesbur, Director, January 23, 1990, p. 5.

[2] Ibid., p. 6.

[3] Ibid.

[4] Ibid., pp. 6-7.

The Academic Advisory Committee notes that these above concerns were succinctly presented by the organization of the Ontario Deans and Directors of Schools of Social Work which stated:

> We believe that Ryerson's program designation as a Bachelor of Social Work degree will dispel the confusion held by a number of students and employers with respect to its educational status. What they offer is a Bachelor of Social Work degree and it should be recognized as such.[6]

In conclusion, the Academic Advisory Committee believes there to be a societal need and student demand for the proposed designation change, substantiated by the experiences of program graduates, admission offices of other post-secondary institutions across Canada, and the observations of employers of program graduates.

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *The Ontario Council on University Affairs recommend to the Minister that Ryerson Polytechnical Institute be granted the authority to offer the Bachelor of Social Work degree designation.*

Academic Advisory Committee
September 14, 1990

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[5] Ibid., p. 7.

[6] Letter from Mr. Richard Carrière, Chairperson, Ontario Deans and Directors of Schools of Social Work, to Dr. H.V. Nelles, Chairman, Ontario Council on University Affairs, May 2, 1990.

Appendix B

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Request for Approval of the Use of the Degree Designation Bachelor of Engineering in Electrical Engineering

Ryerson Polytechnical Institute

During the summer of 1990, the Ontario Council on University Affairs (OCUA) referred a request for the authority to grant the Bachelor of Engineering degree from Ryerson Polytechnical Institute to its Academic Advisory Committee (AAC) for consideration. Subsequent discussions between the Council and Ryerson Polytechnical Institute led to modifications to the original referral to the Academic Advisory Committee. The Committee was then asked to consider a more specific request from Ryerson Polytechnical Institute for the authority to grant the Bachelor of Engineering degree for Electrical Engineering.

The Committee was asked to provide advice to Council on the following issues:

- whether or not the degree designation reflects program content;
- whether or not the degree designation reflects and enhances Ryerson's differentiated role;

and

- on the suitability of the proposed change in degree designation.

The Committee's advice is summarized below.

1. Degree Designation Reflective of Program Content

Ryerson presently offers Bachelor of Technology degrees in engineering. Ryerson states that the curriculum of the electrical engineering program for which the Bachelor of Engineering (BEng) designation has been requested has been modified over the past few years in order to comply with the curricular requirements for professional licensure as prescribed by the Association of Professional Engineers of Ontario (APEO) and the criteria for accreditation as prescribed by the Canadian Engineering Accreditation Board (CEAB).

Ryerson argues that the Bachelor of Technology designation is, therefore, an inaccurate descriptor of the electrical engineering program which they offer. Ryerson states:

> ...the proposed change in degree designation is being sought for graduates to certify that they have completed an engineering program, rather than an engineering technology program.[1]

A meeting with the APEO confirmed for OCUA and AAC that the electrical engineering curriculum now offered by Ryerson is producing engineers and not technologists.[2]

Career information literature published by the Association of Professional Engineers of Ontario supports Ryerson's claim that they now offer engineering education and not engineering technology education. APEO documentation regarding careers in electrical engineering contains special mention of Ryerson's program as follows:

> ...Ryerson is now offering engineering programs which at the time of this writing (August 1988) have not yet been accredited by the Canadian Engineering Accreditation Board (CEAB)...[3]

AAC notes that this program is still unaccredited but that Ryerson has indicated that "one of [its] highest current priorities is achieving formal accreditation for its engineering programs."[4]

AAC also notes that the Academic Requirements Committee of the APEO, upon review of the electrical engineering program at Ryerson, determined that 1989 and 1990 graduates wishing to obtain professional licensure and use of the designation "Professional Engineer" (PEng) are required to write only four engineering course content exams in order to assure the profession of their competence.[5] The rationale provided by the Association of Professional Engineers of Ontario for the requirement of additional exams is that:

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[1] Ryerson Polytechnical Institute, Electrical Engineering, Proposal for Degree Designation Change to Bachelor of Engineering, December 1990, p. 2.

[2] Meeting between Mr. Peter Osmond, APEO, Dr. Spruce Riordon, Chairman, Academic Advisory Committee and Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, December 12, 1990.

[3] Ryerson Polytechnical Institute, Electrical Engineering, Proposal for Degree Designation Change to Bachelor of Engineering, December 1990, Appendix II "A.P.E.O. Identification of Engineering Nature of Ryerson Programs".

[4] Ibid., p. 4.

> Examinations are usually required to confirm their [the students'] academic equivalency or to complete studies not previously undertaken.[6]

Four exams are also required of anyone wishing to obtain professional licensure who has graduated from an engineering program not accredited by the Canadian Engineering Accreditation Board but which is accredited in a non-Canadian jurisdiction.[7]

The fact that Ryerson's 1989 and 1990 electrical engineering graduates are required by the APEO's Academic Requirements Committee to write a minimum of only four exams, which is the same as the number of confirmatory exams required of graduates of accredited programs from other jurisdictions, provides the Academic Advisory Committee with relatively strong assurance, short of accreditation, that the degree designation BEng is an accurate reflection of the engineering content of the electrical engineering program at Ryerson.

Ryerson's electrical engineering program underwent a pre-accreditation "trial visit" during the Fall of 1990. Ryerson is in the process of preparing for a formal accreditation assessment of the electrical engineering program, to be undertaken during the Fall of 1991.

The Academic Advisory Committee notes that the proposal for a Bachelor of Engineering degree designation at Ryerson was reviewed by the Council of Ontario Deans of Engineering (CODE) and that a majority of CODE members had no objection to the proposed change in degree designation.[8]

The proposed change in degree designation from BTech to BEng was considered by a variety of committees within Ryerson in the context of the OCUA review process for continued funding eligibility of electrical engineering as an existing program. Within this process, the proposed degree designation change was approved by the program's Advisory Committee, the Department Council, Program Review Committee, Ryerson's Academic Standards Committee, Academic Council and the Board of Governors. Explicit approval to request authority to award the BEng degree was given by the Academic Council in January 1990.[9]

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[5] Exams are required in the following areas:
- Probability and Statistics
- Statics and Dynamics
- Mechanics of Fluids or Thermodynamics
- one exam drawn from "Section B"

(an exam in Organization and Management or Engineering Economics is also required only if similar courses have not already been taken)

[6] Letter from Mr. John Currie, Registrar, Association of Professional Engineers of Ontario, to the Ontario Council on University Affairs, October 3, 1990, pp. 1 - 2.

[7] These exams are known as "confirmatory" exams and are standardized by the CEAB. Two exams are standard to all engineering specializations and two are specific to the type of engineering being practiced.

[8] Letter from Dr. Edward J. Monahan to the Ontario Council on University Affairs, June 16, 1990, Attachment, p. 1.

The Academic Advisory Committee is satisfied that the BEng designation is an appropriate designation for Ryerson to offer in the case of the electrical engineering program.

2. Degree Designation Reflects and Enhances Ryerson's Differentiated Role

Ryerson has requested authority to grant the Bachelor of Engineering degree designation for this program. In support of this request, Ryerson states:

> In Ontario, accredited engineering programs offer considerable variation in their balance between engineering design (the more practical emphasis) and engineering science as permitted within the criteria of the CEAB...Ryerson is proposing to change its Electrical Engineering degree from BTech to BEng. Ryerson believes that this choice signifies the program's emphasis on "engineering design" for professional training in engineering that is highly practical in orientation.[10]

Although the adoption of this degree designation and compliance with the professional requirements for engineering accreditation will in most respects force Ryerson's engineering programs to conform to the same standards as other engineering programs, it is the Committee's opinion that the applied nature of engineering, and the particular emphasis upon applied technology projects at Ryerson make the Bachelor of Engineering (BEng) designation consistent with Ryerson's mission of training individuals for a specific vocation in an area of societal need. The adoption of this degree designation will also provide employers with a means by which to differentiate the graduates of the previous technology-oriented program from graduates of the existing curriculum.

The Academic Advisory Committee notes Council's statement that

> it is contradictory that an institution whose role focuses on providing students with practical and marketplace-oriented education should be limited to degree designations which inhibit this mission.[11]

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9. Ryerson Polytechnical Institute, Electrical Engineering, Proposal for Degree Designation Change to Bachelor of Engineering, December 1990, p. 1.

10. Ibid., p. 5.

11. Ontario Council on University Affairs, Fourteenth Annual Report, 1987-88, "Advisory Memorandum 87-X: An Amendment to the Ryerson Polytechnical Institute Act of 1977 Regarding Degree Designation", p. 117.

It is the view of the Committee that in this case, the degree designation required to "convey the educational background of the graduates accurately",[12] (the BEng), cannot also be a designation which "reflects and enhances Ryerson's differentiated role".[13]

The Academic Advisory Committee believes that the maintenance of the existing BTech (Electrical Engineering) degree designation would be an inappropriate designation for Ryerson's electrical engineering program since the curriculum of the program has been recently modified in accordance with the requirements for engineering accreditation and it is no longer a technology program. Ryerson has indicated in their submission to the Ontario Council on University Affairs that it will continue to modify this engineering program in whatever manner is required in order to obtain professional accreditation.[14]

3. Suitability of the Proposed Change in Degree Designation

Ryerson indicates that graduates of the current electrical engineering program increasingly seek and find employment at an engineering level. A survey of 35 employers of recent Ryerson graduates, conducted in June, 1989, revealed that 69% of the work performed by current graduates was at the engineering level only; 25% was a mix of engineering and technologist level work; and that just 6% of recent graduates worked at the technologist level only.[15]

Employer comments regarding the academic preparation, work performance, and prospects for upward mobility of Ryerson graduates were mixed. Although a few companies indicated that Ryerson BTech graduates have the same upward mobility as other BASc/BEng graduates, the majority indicated that upward mobility is hampered by "the lack of an accredited engineering degree."[16] Ryerson's survey revealed that 38% of the employers of recent graduates believed that the level of work assigned to Ryerson graduates and their prospects of upward mobility would be enhanced if the degree designation were changed to BASc or BEng.[17]

Ryerson argues that the BTech designation is confusing to employers and unfair to graduates since this designation is not used to describe engineering education in Canada. This point is supported by comments from Allergan Humphrey Research Inc. which indicated to Ryerson by letter that:

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[12] Ibid., p. 116.

[13] Ibid., Criterion 2. (b) of the OCUA review process for a change in degree designation for existing programs.

[14] Ryerson Polytechnical Institute, Electrical Engineering, Proposal for Degree Designation Change to Bachelor of Engineering, December 1990, p. 4.

[15] Ibid., Appendix IV "1989 Employer Survey".

[16] Ibid., quoting the response from Northern Telecom.

[17] Ibid., 69% of the respondents indicated that upward mobility would be enhanced if the program obtained formal engineering accreditation and 44% indicated mobility would be enhanced if graduates obtained membership in a provincial association of professional engineers.

> The BTech status is not clear to most people. This fuzziness is unfair to your graduates. Accreditation and changing the designation to a BEng would solve these problems.[18]

The point is further substantiated by the Canadian Council of Professional Engineers/Canadian Engineering Accreditation Board which indicated that:

> It has become abundantly clear that the most common source of difficulty and confusion arises from attempts to distinguish the difference between "engineers" and "technologists", both in the registration process and in the workplace. Two factors are mainly responsible for these difficulties. First is the emergence in relatively large numbers of individuals classified as "technologists". The second factor, which is the greater difficulty, has been the conversion of schools of technology to schools of engineering where both the technology level graduates and the engineering level graduates are granted the same degree designations.
>
> When BEng (or equivalent) and BTech degrees are granted by different schools there is little difficulty in distinguishing the difference in the registration process since the school of graduation determines the difference. When the school is the same, this distinction cannot be made unless the date of transition from one type of program to the other is well known by all. Such knowledge among potential employers is highly unlikely.
>
> The problems which have arisen from this lack of distinction in many other countries has lead to very substantial difficulties for both the profession and the graduates. Most of the countries so affected have mounted massive efforts to have the degree designations changed for the affected programs. This is of little comfort to the graduates who carry the obsolete degree designations for the rest of their careers.[19]

Ryerson notes that since 1982, the number of BTech engineering graduates who have applied for professional licensure has increased from 40 per year to over

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[18] Ibid., Appendix IV "1989 Employer Survey".

[19] Letter from Mr. Gerald M. Matthews, P.Eng., Secretary, Canadian Engineering Accreditation Board, to the Ontario Council on University Affairs, November 23, 1990, p. 2.

80 per year by late 1990.[20] Since 1989, the number of additional exams required by the APEO of Ryerson BTech graduates in electrical engineering has decreased from 10-14 to 4-5 in recognition of the revamped engineering curriculum. This is as far as the APEO can go until the accreditation of the program is complete. Once accreditation is obtained, the requirement of additional exams will then be eliminated. An engineering degree designation is an integral element in the attainment of accreditation.[21]

Additional information provided by the Registrar of the Association of Professional Engineers of Ontario elaborates on this last point, as follows:

> CEAB does not concern itself with the actual degree granted, be it Bachelor of Engineering or Bachelor of Applied Science or Bachelor of Science. However, CEAB does not accredit any program with the word "technology" contained in its title, nor does it ... accredit any program the graduates of which have a degree such as Bachelor of Technology.[22]

Letters from other engineering schools within the Ontario university system have indicated that the opportunities for Ryerson graduates to be admitted to advanced studies at the graduate level could be enhanced by a changed degree designation and/or accreditation.[23] AAC notes that in 1989, McGill University unconditionally admitted a Ryerson electrical engineering graduate directly into their MEng program in the area of Systems and Control.[24]

It is the conclusion of the Academic Advisory Committee that the request for authority to grant the BEng degree designation for electrical engineering by Ryerson Polytechnical Institute is reasonable given the recent curriculum modifications which will ensure that professional accreditation is obtained, the professional requirement that accredited engineering programs carry an "engineering" degree designation, the high potential for career disadvantages which graduates will experience if the existing designation is maintained and the resultant confusion on the part of employers and the marketplace regarding the difference between previous and recent Ryerson electrical engineering graduates.

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[20] Letter from the Association of Professional Engineers of Ontario to Ryerson Polytechnical Institute, December 7, 1988. (The APEO could not provide Ryerson with more detailed records, nor more up-to-date records. Letter from APEO to Ryerson, December 3, 1990).

[21] Meeting between Mr. Peter Osmond, APEO, Dr. Spruce Riordon, Chairman, Academic Advisory Committee and Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, December 12, 1990.

[22] Letter from Mr. Peter J. Osmond, P.Eng., Registrar, Association of Professional Engineers of Ontario, to the Ontario Council on University Affairs, October 9, 1990.

[23] Ryerson Polytechnical Institute, Electrical Engineering, Proposal for Degree Designation Change to Bachelor of Engineering, December 1990, p. 4. Letters from other Ontario departments of engineering (Queen's, Toronto, Carleton, McMaster and Western Ontario Universities) "Appendix VII".

[24] Ibid., "Appendix VI, McGill University Admission of Ryerson Graduate", Letter from McGill University to Mr. Stefan Hax, April 7, 1989.

The Committee notes that there is a current and projected shortage of engineers not only nationally, but internationally. Demand for engineers is expected to increase by 45% in the next decade, while supply is projected to increase by just 8%[25] The establishment of an accredited electrical engineering program at Ryerson will undoubtedly help address the unmet societal needs in this particular area of engineering expertise. In order for graduates of Ryerson's electrical engineering program to contribute to the development of Ontario's industrial base and become immediately absorbed into the workforce at a level consistent with their educational background, as is required by Council's specifically defined mission for Ryerson, it is also the conclusion of the Committee that the need for the BEng degree designation overrides the need for a differentiated degree designation for Ryerson in this case.

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *The Ontario Council on University Affairs recommend to the Minister that Ryerson Polytechnical Institute be granted its request for the authority to grant the Bachelor of Engineering degree in Electrical Engineering.*

Academic Advisory Committee
December 12, 1990

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[25] Margaret McCaffery, Financial Post, "No easy fix for shortage of engineers", Thursday, September 20, 1990.

90-XI The Allocation of the 1990-91 and 1991-92 Program Adjustments Envelopes

In his April 25, 1990 letter, the Minister of Colleges and Universities requested that Council initiate a two-year Program Adjustments competition in which funds would be disbursed through both the 1990-91 and the 1991-92 Envelopes[1]. The decision to proceed with the allocations of both Envelopes at that time was attributable to the late date at which Council received Government's priorities and the fact that the identified priorities were in areas of critical need which would persist over the medium term. In this memorandum, Council recommends on the allocation of $10.2 million through the 1990-91 Program Adjustments Envelope and a further $7 million through the 1991-92 Envelope. In recommending on the funding of projects through the 1990-91/1991-92 Program Adjustments Envelopes, Council has endeavoured to make available sufficient funds for this two-year allocation while ensuring that adequate sums will be available to initiate new projects in future years.

By way of introduction, Section 1 presents an overview of the development and intended purposes of the Program Adjustments Envelope. Section 2 follows with an outline of the specific criteria and processes introduced to guide allocations for 1990-91 and 1991-92. General comments on the review process are provided in Section 3, followed by funding recommendations in Section 4.

1.0 Background

In Advisory Memorandum 86-II, Council recommended the introduction of an envelope to support institutional program adjustments. This recommendation was driven by two considerations. First, it was thought that such grants would assist institutions in achieving declared Government policy objectives which emphasized rationalization and consolidation of program offerings and the avoidance of unnecessary program duplication. The second consideration related to Council's concern that institutions retain the flexibility and resources to adjust programs, staffing and enrolment levels; to mount new programs in areas of provincial priority; or to accommodate students displaced through program consolidation at another institution. The basic character of the proposed envelope was outlined in Advisory Memorandum 86-II:

> Council foresees a need to fund a portion of the costs associated with program closure, program start-up in areas of critical need, moving capacity from one institution to another or initiating co-operative efforts or joint programs in order to facilitate desired program adjustments. The length of commitment should vary from short-term for program closings to more long-term for program openings. Funding for program closures,

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[1] Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H. V. Nelles, April 25, 1990.

> capacity shifts and joint programs is, in effect, an incentive system to provide more focus for the university enterprise in Ontario. Funding for program start-up in areas of critical need identified by Government or Council is an incentive program for new initiatives. However, in each case a multi-year commitment must be made to phase-in the changes anticipated. Carry-over funding similar to that provided for capital grants should be instituted. Under this arrangement a commitment should be made to fund a particular program adjustment over a period of time and the flow of funds should be identified. Funding recommendations would be on a "new start" basis similar to Council's current approach to capital funding.
>
> Council believes the best way to fund these program adjustments is through a challenge fund. Under such an arrangement, institutions will be able to make proposals for program adjustments and negotiate funding for them. Council and the Minister should also be able to use these funds to provide incentives for program consolidation and specialization as well as new program areas. As a challenge fund, funds not used in any one year for program adjustments should not be allocated to the university system in that year. Council believes that this will provide a significant incentive to institutions to examine and consolidate their program offerings.[2]

While it was Council's initial recommendation that the fund emphasize program rationalization, consolidation, and growth in areas of critical need, the emphasis of the Program Adjustments Envelopes was since altered by Government through its identified priorities to concentrate on the third item -- the development and expansion of programs in areas of critical need. While it is this third priority which has been emphasized in recent years, Council continues to believe that program rationalization and consolidation are important priorities which should be recognized by Government.

In response to Advisory Memorandum 86-II, the Minister of Colleges and Universities announced that a sum of $7 million would be made available for 1987-88 for program adjustments in graduate and undergraduate programs. Since the introduction of the Program Adjustments Envelope at that time, $7 million has been made available annually to support program adjustment activities.

Council indicated in Advisory Memorandum 86-VII that it wished to develop appropriate processes, criteria and guidelines for the use of the envelope after receiving the input of the Council of Ontario Universities and individual institutions[3]. Based on a review of institutional comments, Council subsequently recommended on the interim criteria and process for the 1987-88 Program Adjustments Envelope[4]. For that first year of the Envelope, allocations were made on a pro rata basis according to each institution's share of total Basic Income Units (BIUs). The criteria and process for the envelope for 1988-89 and beyond were developed more formally and presented in Advisory Memorandum 87-XI.[5] Those parameters provided the framework for both the competitive allocations of the 1988-89 and 1989-90 Envelopes as recommended in Advisory Memorandum 88-VII[6] and the allocations of the 1990-91 and 1991-92 Envelopes, recommended in this memorandum. The specifics of the review process undertaken for the 1990-91/1991-92 allocations are presented in Section 2.

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[2] Ontario Council on University Affairs, Thirteenth Annual Report, 1986-87, "Advisory Memorandum 86-II: Government Support of the University System in 1987-88 and 1988-89", p. 56.

[3] Ontario Council on University Affairs, Thirteenth Annual Report, 1986-87, "Advisory Memorandum 86-VII: Modification of the Operating Grants Formula", p. 186.

2.0 Allocation Parameters Established for the 1990-91 and 1991-92 Program Adjustments Envelopes

The allocation of the 1990-91 and 1991-92 Program Adjustments Envelopes was guided by a number of considerations. Allocations were guided by a set of priorities which are established annually to reflect areas of critical need and by a set of ongoing objectives for the Envelope. Funding recommendations were guided further by the types of adjustment expenditures deemed eligible for funding support. Allocations were also determined by the level of funds available annually through the Envelope and, finally, by the process established through which proposals are reviewed and ranked. These considerations are discussed in turn in the sections which follow.

2.1 Priorities for Eligible Activities

Three sets of priorities guided the 1990-91/1991-92 review process. One set of principal priorities established to guide allocations was that put forth by Government. A second set of principal priorities was identified by Council. Thirdly, institutional priorities were reviewed as subordinate priorities for the Program Adjustment allocations.

On April 25, 1990, the Minister provided Council with Government's priorities which were to guide allocations through both the 1990-91 and 1991-92 Program Adjustments Envelopes. The following areas of critical need were identified as Government priorities for new or expanded program support in the 1990-91 and 1991-92 review cycles of the Program Adjustments Envelope:

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[4] Ontario Council on University Affairs, Fourteenth Annual Report, 1987-88, "Advisory Memorandum 87-VII: Criteria and Process for the Program Adjustments Envelope, 1987-88", pp. 85-89.

[5] Ontario Council on University Affairs, Fourteenth Annual Report, 1987-88, "Advisory Memorandum 87-XI: The Criteria and Process for the Program Adjustments Envelope for 1988-89 and Beyond", pp. 123-130.

[6] Ontario Council on University Affairs, Fifteenth Annual Report, 1988-89, "Advisory Memorandum 88-VII: The Allocation of the 1988-89 Program Adjustments Envelope".

- Development or expansion of teaching programs to meet the needs of Ontario's health care, social service and public education systems, in particular, programs in rehabilitation sciences, nursing, social work and the following teacher education areas: French (first language and second language), technological studies, and intermediate/senior mathematics and science; and

- Development or expansion of teaching programs to meet the requirements for Ontario's scientific, technical or economic development, and programs to promote environmentally sustainable development.

Two additional Government priorities were established to guide the review process:

- Development or expansion of initiatives (particularly those involving joint, co-operative efforts among institutions) which enhance the extension of programs in areas of critical need to students from underserviced regions of the province or from groups traditionally underrepresented in the university sector; and

- Development or expansion of initiatives (particularly those involving joint, co-operative efforts among institutions) which involve innovative modes of delivery of teaching programs in areas of critical need.[7]

The areas of critical need established by Government were not ranked in order of priority and were to apply both to proposals for new or expanded programs.

Council identified the following additional activities which were to be eligible for funding through the 1990-91 and 1991-92 Program Adjustments Envelopes:

- closures of programs and significant contractions in existing programs;

- major shifts in emphasis or capacity within programs;

- new or significantly expanded co-operative or joint inter-institutional programs;

- movement of program capacity from one institution to another; and

- development or commencement of programs which are eligible or become eligible for Government support where the program is in an identified area of critical need.

In addition, suggestions forwarded from the institutions were reviewed as subordinate priorities for the allocation. Based on a review of those institutional recommendations, the following activities were selected as a third priority for the 1990-91/1991-92 allocations:

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[7] Letter from the Honourable Sean Conway, Minister of Colleges and Universities, to Dr. H.V. Nelles, April 25, 1990.

- adjustments which specifically foster improvements in the quality of full-time or part-time undergraduate instruction through changes or innovative modes of delivery.

Within the priority areas noted above, Council recommends for funding only those projects which it feels constitute "significant" program adjustments. Council does not recommend the funding of proposals for minor adjustments which it feels should be a part of normal institutional change.

2.2 Ongoing Objectives of the Program Adjustments Envelope

Requests for Program Adjustments funding to undertake any of the stated eligible activities were measured against the objectives outlined below. Meeting one or more of these objectives was an *a priori* condition for funding eligibility.

The Program Adjustments Envelope was established to achieve the following objectives:

- enhance quality;
- encourage the rationalization or consolidation of program offerings;
- encourage institutional differentiation;
- provide to institutions flexibility in making significant structural changes in their program offerings;
- facilitate adaptation to downward changes in funding corridors;
- encourage inter-institutional co-operation; and
- allow for shifting of underutilized resources to better locations.

Each of the aforementioned objectives was treated as being of equal importance.

2.3 Eligible Expenditures

The principal aim of the Program Adjustments Envelope is to provide funding to eligible adjustment activities in approved programs. "Adjustment costs" by definition include costs associated with eligible activities incurred in the implementation phase of the adjustment. Funding of adjustment costs extended through the Program Adjustments Envelope is restricted to those programs which have Ministerial funding approval. The maximum period of funding for any adjustment project is four years.

Program adjustments which are in the early developmental phase and which have not received funding approval are not eligible for regular adjustment funding.

The Envelope will however support certain expenditures incurred in the early development phase of an adjustment project for programs which are not funding approved. Such projects are eligible to claim clearly identified "development costs" for a maximum period of two years. "Development costs" are defined to include those development and planning costs related to the adjustment project incurred prior to the implementation stage. This option is open only to those projects which are in areas of critical need as outlined in Section 2.1 and which are consistent with the objectives outlined in Section 2.2 of this document. Once programs are developed and approved for funding, institutions are permitted to resubmit projects for consideration of adjustment costs.

2.4 Funds Available for Distribution

In this memorandum, Council recommends on the allocation of $17.2 million of Program Adjustment funding. Through the 1990-91 Program Adjustments Envelope, Council recommends on the allocation of $10.2 million in support of a limited number of large projects which are capable of accomplishing significant change. This amount includes the $3.7 million available for allocation in 1990-91 and a precommitment of an additional $6.5 million from future years' allocations in recognition that some projects initiated in 1990-91 may extend up to four years in duration. To guide the allocation of the $10.2 million made available through the 1990-91 fund, Council established the following preliminary targets for distribution: $3.7 million for 1990-91; $3.5 million for 1991-92; $2.3 million in 1992-93; and $0.7 million for 1993-94.

Through the 1991-92 Program Adjustments Envelope, Council recommends on the allocation of $7 million in support of large projects capable of accomplishing significant change. This amount includes the $2.2 million made available for allocation in 1991-92 and a further precommitment of an additional $4.8 million from future years' allocations. For the 1991-92 Envelope, preliminary targets were developed on the assumption that $7 million will continue to be made available for distribution annually. In setting distribution targets, Council recommended on a flow of $2.2 million for 1991-92; $2.6 million in 1992-93; $1.5 million for 1993-94; and $0.7 million for 1994-95.

These targets for the annual flow of funds are necessary to ensure that adequate sums are available to initiate new projects in future years. Specifically, these targets will ensure that in addition to carry-forward commitments, $2.2 million of new start-up funding will be available in the first year of future Program Adjustments allocations. Final recommendations on the allocation of all precommitted funds will be subject to confirmation of funds available for 1991-92 and beyond.

2.5 The Review Process

In the initial call for proposals in May 1990, Council indicated that the 1990-91 and 1991-92 Program Adjustments Envelopes would be allocated on a competitive challenge fund basis in a manner consistent with the distribution of the 1988-89 and 1989-90 Envelopes. Following consultations with the Ministry, the provisions governing the competitive allocation of the Program Adjustments Envelopes were subsequently revised to meet the concerns raised by the Council of Ontario Universities in their letter of July 12, 1990.[8]

In revising the provisions, Council determined that its objectives for an effective Program Adjustments Envelope could be achieved with a substantial element of the Envelope being distributed on a pro rata basis, providing that all projects were consistent with the priorities and met in full all the criteria for approval. Therefore, for each of the 1990-91 and 1991-92 Program Adjustments Envelopes the allocation was divided into two parts, with 90% of each Envelope available for distribution on a notional pro rata basis and 10% of each Envelope reserved for allocation on a competitive basis. It was determined that the latter sum was to be augmented by available pro rata funds associated with unsuccessful proposals. This revision employs competition on the margin and, in this and other aspects, endeavours to ensure that all institutional submissions will be of good quality. It also ensures that good proposals from one institution do not go unfunded while proposals of lesser merit from another are recognized. The competitive element also permits small institutions to escape the confines of their necessarily constrained entitlements should they have comparatively strong proposals.

Several possibilities for the pro rata allocations were considered. Council concluded that allocations would be distributed based upon 1989-90 BIUs -- a distribution which in its view was the fairest and most defensible foundation for a Program Adjustments Envelope. Accordingly, for each of the 1990-91 and 1991-92 Envelopes respectively, 90% of the funds were notionally available to institutions in these proportions. These proposals, however, had to be evaluated against the priorities and selection criteria.

Under each Envelope, each institution was invited to submit for evaluation projects up to the level of its notional institutional pro rata allocation plus one additional project. The one additional project was eligible for the competitive portion of the Envelope. In the event of an adverse judgement in the pro rata allocation, institutions were given one opportunity for resubmission to realize their full pro rata entitlement. Council referred unsuccessful projects from the first evaluation back to the institution for improvement or replacement by alternative projects. After that round, pro rata funds not allocated were combined with the 10% reserve pool for allocation on an inter-institutional competitive basis.

Council was most concerned that the revised allocation process should not in any way alter the intended purpose of the Program Adjustments Envelope. Council underscores the importance of respecting the intent of the Envelope. In Advisory Memorandum 87-XI Council stated:

> Council firmly believes that program adjustments funding should not be used as supplementary operating funding to make minor adjustments in programs or departmental structures. The envelope was not intended for that purpose. It was designed to facilitate more significant structural changes in institutional programming which conform to the objectives

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[8] Letter from Dr. George Pedersen, Chairman of the Council of Ontario Universities to Dr. H.V. Nelles, July 12, 1990.

> outlined above. Priority must be given to larger projects which will bring about significant program adjustments. Council will not accept proposals for minor adjustments which it feels should be part of normal institutional change.[9]

While Council approved a revised process through which 90% of the funds would be allocated on a pro rata basis, Council was not willing to operate a pro rata distribution of the Envelope in the manner experienced in the first year of the fund with the 1987-88 Envelope. In the first year of the Program Adjustments Envelope when a pro rata allocation was carried out, projects of questionable materiality were funded providing they met the broad criteria outlined, thereby jeopardizing the continued existence of the Envelope and its associated funds. Council places a high value on the integrity of the Program Adjustments Envelope and its designated purposes. As was the case with the 1988-89 and 1989-90 Envelopes, all pro rata and competitive projects were therefore reviewed according to stringent criteria to ensure the effective utilization of this fund. Inappropriate projects were not recommended for funding.

Specifically, both pro rata and competitive proposals were evaluated against each of the following categories:

1. Consistency with established priorities;
2. Consistency with established objectives;
3. Overall impact on the university system and society;
4. Institutional priority and financial resources;
5. Quality of the proposal;
6. Types of eligible expenditures;
7. Scheduling of expenditures;
8. Cost-Sharing by the institution; and
9. Additional sources of funding.

Noting the substantial variation in the quality and detail of documentation forwarded by institutions in response to the 1988-89/1989-90 competition, Council introduced more formal reporting requirements for the 1990-91 and 1991-92 submissions. Council was particularly concerned that the Program Adjustments Envelope be allocated in support of well thought out projects in harmony with Government and

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[9] Ontario Council on University Affairs, Fourteenth Annual Report, 1987-88, "Advisory Memorandum 87-XI: Criteria and Process for the Program Adjustments Envelope for 1988-89 and Beyond", p. 125.

Council priorities, which were institutionally appropriate and which would effect significant institutional and system impact.

3.0 Review of the 1990-91 and 1991-92 Program Adjustments Proposals

Council was impressed by the interesting array of proposals submitted for consideration in the 1990-91/1991-92 review process. Of the 110 proposals submitted for review, many addressed areas of high Government priority such as teacher education, health sciences and underrepresented groups. Several proposals involved innovative delivery mechanisms or joint inter-institutional activities. A number of interesting proposals were submitted which addressed instructional quality improvements. Some of these proposals included supplementary basic skills supports for students outside of regular course offerings. As it is not currently Government practice to fund non-credit activities, those components could not be recommended for Program Adjustment funding. Council will, however, be reviewing the area of improving student access, retention, counselling and support in undergraduate programs.

Overall, Council found the proposals to be of reasonable quality. Several of the proposals reflected considerable planning for high quality projects. Few pro rata projects submitted could, however, be accepted in their entirety as initially submitted. Of the 65 pro rata proposals initially reviewed, 10 were rejected and 9 were conditionally accepted. Of the remaining 46 projects which were accepted in principle by Council, the majority required some revision to remove ineligible costs from the funding request. Many of the revisions to the pro rata submissions involved a reduction of salary claims initially submitted for Program Adjustment support. While the Program Adjustments Envelope will support up to a maximum of two years of salary expenses per position, many institutions requested funds to cover three and four years of salary expenses.

In view of the limited funds available for allocation through the competitive process, only 7 of the competitive proposals submitted through the two Envelopes were selected for Program Adjustment support. Insufficient funds were available to cover the full cost of the last project accepted under each Envelope. To ensure that the very best proposals were in the competitive process, top-ranked competitive projects not supported in the 1990-91 fund were reviewed for support through the 1991-92 Envelope.

One area of general concern in the review process was the incidence of proposals submitted in areas previously supported by the Program Adjustments Envelope. Council is concerned that the Program Adjustments fund be made available to support short-term adjustment activities, rather than ongoing operating expenses. In such instances, Council accepted components of proposals which clearly addressed a new adjustment activity and rejected those portions which it felt had been adequately supported in previous Envelopes.

Council was also concerned about the number of "conditional" proposals which appeared to be predicated upon obtaining other funding. In many instances the requested level of Program Adjustment support was developed on the assumption that additional funding will be forthcoming from other unconfirmed sources within and outside the Provincial Government. Assumptions were also made as to additional operating income which would arise from Strategic Program Corridor Shifts in the future. In allocating the available Program Adjustment funds, Council emphasizes that unconditional acceptance is required on the part of the institutions. Assurance must be provided that the institution is capable of completing the project and that the adjustment will not be jeopardized should other funding sources fail to materialize. It should not be assumed that additional support will be forthcoming from other Government funds as a result of Program Adjustment approval. Institutions have been advised that in approving the allocation of the Program Adjustments Envelope, the Minister is not in a position to pre-commit any ongoing operating or capital support.

4.0 Recommendations

4.1 Recommended 1990-91 Proposals

Council is recommending on the allocation of a sum of $3.7 million for 1990-91 through the 1990-91 Program Adjustments Envelope. In addition, carry-forward commitments of $6.5 million are being recommended to support projects beginning in 1990-91. Of the total $10.2 million, $9.2 million is being recommended to support a total of 35 pro rata proposals. The remaining $1 million is to support the four meritorious proposals selected through the inter-institutional competition. A sum of $14,000 not allocated from the pro rata fund was made available to supplement the competitive Envelope. Table 1 outlines the projects which Council is recommending for support under the 1990-91 Program Adjustments Envelope and the funds to be provided for the duration of the adjustment. Funds recommended in support of competitive projects are noted accordingly. Brief descriptions of all projects identified by Council for support through the 1990-91 Envelope are provided in Appendix A.

Accordingly, Council *recommends to the Minister:*

OCUA 90-56
DISTRIBUTION OF THE 1990-91 PROGRAM ADJUSTMENTS ENVELOPE

THAT the 1990-91 Program Adjustments Envelope be distributed for the projects and the amounts indicated in Table 1 and that carry-forward provisions identified be designated as the first projects to be funded in subsequent years.

4.2 Recommended 1991-92 Proposals

In this memorandum Council recommends on the allocation of $7 million made available through the 1991-92 Program Adjustments Envelope for projects commencing in 1991-92. Included in this amount is $2.2 million to be allocated in 1991-92 and carry-forward commitments of $4.8 million to support those projects beginning in 1991-92. Of the total $7 million, $6.3 million is recommended in support of 33 pro rata proposals and the remaining $0.7 million is recommended to support three meritorious proposals selected in the competitive round. An amount of $3,000 which was not distributed in the pro rata allocation was made available for distribution to meritorious competitive projects. Table 2 sets forth the projects and funds recommended for support through the 1991-92 Program Adjustments Envelope. Competitive funds awarded to institutions are noted accordingly. Brief descriptions of all projects identified by Council for funding recommendation through the 1991-92 Envelope are provided in Appendix B.

Further comment is required on Brock University's pro rata project which is included in Table 2. Under the 1991-92 Envelope, Brock submitted a four-year request for funds to support the introduction of a Technological Studies option in the Bachelor of Education program. While aware that four-year allocations are confined to programs with full Ministerial funding approval, it was Brock's assumption that further funding approval would not be required for this new option. However, a recent meeting between Council staff and representatives of the Ministry of Education has revealed that the Technological Studies option -- deemed to be a significant expansion of Brock's mandate to provide Education programs -- does indeed require a recommendation for funding eligibility. Since this information was received by Council and Brock University at an extremely late stage in the development of this advice, it was not feasible in this instance for the proposal or the recommendations to be revised. Special arrangements pursuant to this unique circumstance have therefore been approved by Council. Brock's four-year request for Program Adjustment funds is being approved on a conditional basis. The full four-year allocation will be recommended only in the event that the Technological Studies option is awarded funding approval status in the 1991-92 round of program reviews for funding eligibility. Should the Technological Studies proposal not receive funding approval at that time, the recommended Program Adjustment allocation will be reduced to two years of funding.

Accordingly, Council *recommends to the Minister:*

OCUA 90-57
DISTRIBUTION OF THE 1991-92 PROGRAM ADJUSTMENTS ENVELOPE

THAT the 1991-92 Program Adjustments Envelope be distributed for the projects and the amounts indicated in Table 2 and that carry-forward provisions identified be designated as the first projects to be funded in subsequent years.

4.3 Overview of Recommended Proposals

A number of programmatic themes were discernible in the proposals which were submitted and ultimately recommended by Council for funding support. Following a review of 110 proposals, 75 projects were approved by Council for support through the 1990-91 and 1991-92 Program Adjustments Envelopes. Of the 75 recommended projects, approximately 40 percent addressed science and engineering programs, a large number of which involved a focus on the environment. Another 20 per cent of the recommended projects addressed health science initiatives and approximately 15 percent involved teacher education. Social work and related projects accounted for 8 percent of the recommended proposals.

In addition to addressing programs of critical need, as noted above, the submissions also targetted a number of other priorities. Several of the approved projects represented inter-institutional initiatives. In the case of Trent's Natural Resources proposal and Brock's Technological Studies submission, the inter-institutional focus represented joint initiatives to be undertaken with local Colleges of Applied Arts and Technology. As Tables 1 and 2 indicate, a significant number of recommended projects addressed the priority of innovative modes of delivery. Such projects included the expansion of distance education, the extension of off-campus or part-time delivery, and expanded co-operative education formats.

Many of the approved proposals responded to Government's priority of enhancing delivery to under-serviced regions of the Province and to groups traditionally underrepresented in the university sector. Among the recommended proposals are initiatives involving Native programs, French language programs, and proposals to expand program delivery in Northern Ontario. Another innovative equity initiative, submitted by the University of Ottawa, is designed to reduce accessibility barriers and discrimination in the Common Law program.

A number of approved projects address Council's priority of supporting major shifts in emphasis within existing programs and structural changes in program offerings. At Algoma, for example, Program Adjustment support will assist the institution in moving out of the Bachelor of Commerce and Accounting programs, to focus on the Bachelor of Business Administration program. This structural change was recommended by Council in Advisory Memorandum 88-VIII.[10] At several institutions, Program Adjustments submissions emphasize major shifts in emphasis or capacity which are consistent with recently established corridor enrolment plans.

5.0 Conclusion

By enforcing a uniform level of consistency in the data submitted, the standardized reporting requirements facilitated greatly both the judgement exercised by Council in the review and the timeliness with which Council was able to complete the full evaluations. With the rigorous evaluation applied in the pro rata review and the associated revisions and resubmissions requested in the process, Council is satisfied that the institutions have submitted for funding substantive projects of high quality. The clarification round of the review cycle has in effect enabled most institutions to fully realize the grants made available to them on a pro rata basis. With regard to the competitive grants, Council notes that difficult choices had to be made. Council was confronted with many high quality, innovative projects in competition for very limited funds. Council will be assessing the allocative mechanism employed in this review process to evaluate the appropriateness of the 90 percent pro rata/10 percent competitive allocation for future Program Adjustments Envelopes. For 1990-91 and 1991-92, Council believes that both the pro rata and competitive projects identified within this memorandum are fully consistent with the priorities and objectives of the Program Adjustments Envelopes and are capable of effecting significant change both at the institutional and system level.

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[10] Ontario Council on University Affairs, Fifteenth Annual Report 1988-89, "Advisory Memorandum 88-VIII: Mission, Programs, and Funding for Algoma College", p. 122.

Dr. H.V. Nelles,
Chairman

January 18, 1991

Table 1

1990-91 Program Adjustments Envelope Projects and Flow of Funds
($000)

University	Project	Funding Flow 1990-91	1991-92	1992-93	1993-94	Total
Brock	Implementation of a new concurrent BSc/B.Ed. program	87	84	54	18	243
Carleton	Implementation of an undergraduate Environmental Science program	130	173	110	37	450
	Development of new Bachelor of Social Work program	50				50
Guelph	Expansion of Environmental Engineering program	185	178	114	38	515
Lakehead	Expansion of Outdoor Recreation program	54	52	33	11	150
Laurentian	Implementation of cooperative format in Mining and Extractive Metallurgical Engineering	65	63	40	13	181

University	Project	1990-91	1991-92	1992-93	1993-94	Total
Algoma	Expansion of Ojibway language offerings	5	5	3	1	14
Nipissing	Implementation of Native Teacher Certification Program	17	16	10		43
(competitive)	Implementation of Native Teacher Certification Program	109	157	19		285
McMaster	Expansion of Occupational Therapy and Physiotherapy programs	63	71	124	42	300
	Development of a new Engineering and Society program	65	65			130
	Establishment of a Geographical Information Systems Laboratory	74	60			134
(competitive)	Establishment of a Multi-University Internship in Engineering	60	60	70		190
Ottawa	Introduction of a Francophone stream in the MD program	30	151			181

University	Project	1990-91	1991-92	1992-93	1993-94	Total
Ottawa (continued)	Development of a new Masters in Social Work program to be offered in the French language	35	72			107
	Development of French didactic materials for science disciplines	16	16	73	40	145
	Expansion of Common Law Education Equity program	80				80
	Expansion of Bachelor of Education program in Mathematics and Science offered in the French language	90	3	81	11	185
(competitive)	Development of a joint masters program in Speech Pathology and Audiology with Laurentian University	37	94			131
Queen's	Extension of early retirements to support shift in emphasis in the sciences	226	219	139	46	630

University	Project	1990-91	1991-92	1992-93	1993-94	Total
Toronto	Implementation of a new undergraduate program in Computer Engineering	234	246	191	134	805
	Development of a Physical Therapy Learning Resource Facility -- Phase I	216				216
	Establishment of a Social Work Research office to support research in the masters and doctoral programs	153	115	4		272
	Program to improve the undergraduate learning experience	53	272	208		533
Trent	Development of linkages between Trent and Sir Sandford Fleming College in Natural Resources programs	46	44	28	9	127
Waterloo	Expansion in Electrical Engineering and Environmental Engineering programs	238	229	146	49	662
Western	Implementation of an off-campus part-time program in Nursing	200	142	52	22	416

University	Project	1990-91	1991-92	1992-93	1993-94	Total
Western (continued)	Expanded course offerings in Sustainable Development	104	143	132	27	406
	Enhanced instructional and laboratory capabilities in medical education	13	22	11	16	62
(competitive)	Expansion of CAD/CAM/CIM Engineering	165	44	137	82	428
Wilfrid Laurier	Expansion of Music Therapy program	77	74	47	16	214
Windsor	Introduction of an Integrated Science and Education program	130	126	80	27	363
York	Expansion in the size and range of activities offered by the Faculty of Pure and Applied Science	369	357	227	76	1,029
OISE	Development of graduate program tailored to the needs of faculty and staff in the Colleges of Applied Arts and Technology	22	20			42
	Expansion and enhancement of distance education programs	17	18	24	8	67
Ryerson	Expanded enrolments and introduction of new delivery format in Nursing program	40	35			75

University	Project	1990-91	1991-92	1992-93	1993-94	Total
Ryerson (continued)	Expansion in Applied Computer Science program	14	94	82	27	217
	Expansion in Aerospace Engineering program	80				80
OCA	Enhancement of Design for Social Needs program	14	18	11		43
Total		3,663	3,538	2,250	750	10,201

Table 2

1991-92 Program Adjustments Envelope Projects and Flow of Funds
($000)

		Funding Flow				
University	**Project**	**1990-91**	**1991-92**	**1992-93**	**1993-94**	**Total**
Brock	Introduction of a Technological Studies specialization in the Bachelor of Education program	52	61	36	18	167
Carleton	Development of a new Telecommunications Engineering program	54	62			116
	Development of a new undergraduate program in Environmental Engineering	41	50			91
	Expansion of an Industrial Experience program in engineering	13	13	73	37	136
(competitive)	Implementation of PhD program in Computer Science to be offered jointly with the University of Ottawa	111	143	78	58	390
Guelph	Development of a new undergraduate major in Health Promotion	54	54			108

University	Project	1990-91	1991-92	1992-93	1993-94	Total
Guelph (continued)	Expansion in the undergraduate and graduate Community Nutrition programs	57	75	76	38	246
Lakehead	Expansion in Nursing enrolments	32	37	22	11	102
Laurentian	Extension of the University of Ottawa's PhD in Clinical Psychology to Northern Ontario	39	45	27	13	124
Algoma	Conversion from the Bachelor of Commerce transfer program and BA (Accounting) program to the Bachelor of Business Administration program	3	4	2	1	10
Nipissing	Expansion of French language linguistic and literature course offerings within the Humanities Division	10	11	7	3	31
McMaster	Expansion of new Biology-Pharmacology program	50	50	83	42	225
	Development of a graduate program concerned with the critical analysis of Social Work practice	71	91			162

University	Project	1990-91	1991-92	1992-93	1993-94	Total
Ottawa	Extension of PhD Clinical Psychology program to Northern Ontario	101	70	43	46	260
	Shift in emphasis in the Physiotherapy program toward cardio-respiratory physiotherapy	23	31			54
	Implementation of french stream in Computer Engineering	27	74	60	5	166
(competitive)	Expanded teacher education enrolments in French as a Second Language	10	56	44		110
Queen's	Implementation of an Instructional Development Centre to support curriculum and teaching skills development	136	157	93	46	432
Toronto	Implementation of a new Bachelor of Health Science program	127	326	268	134	855
	Development of a new PhD program in Nursing Science	176	130			306
	Development of a Physical Therapy Learning Resource Facility -- Phase II	91				91

University	Project	1990-91	1991-92	1992-93	1993-94	Total
Trent	Implementation of innovative initiatives in science education	27	32	19	9	87
Waterloo	Establishment of an Analytical Laboratory for Environmental programs	65	66		49	180
	Shift in emphasis in the English Department away from conventional literature options toward new Rhetoric and Professional Writing options	33	49	97		179
	Implementation of new Gerontology program	45	50			95
(competitive)	Expansion of distance education programs	100	57	29	17	203
Western	Development of an Environmental Engineering option in undergraduate Engineering Science programs	150	150	130	65	495
	Development of an interdisciplinary program in the Faculty of Science	41	71			112
Wilfrid Laurier	Expanded Distance Education program	46	54	31	16	147
Windsor	Introduction of BScN program for Registered Nurses	78	91	53	27	249

University	Project	1990-91	1991-92	1992-93	1993-94	Total
York	Development of a new undergraduate program in Environmental Studies	136	121			257
	Expansion of critical skills component in existing undergraduate courses	86	136	151	76	449
OISE	Introduction of a new mathematics, science, technology specialization within existing graduate programs	24	27	16	8	75
Ryerson	Extension and consolidation of co-operative format and expanded enrolments in Applied Chemistry and Biology and Chemical Engineering	45	55	15		115
	Expansion of the Environmental Health program	35	38	40	27	140
OCA	Development of an integrated computer workshop facility through Technological Studies for the Art Division and Foundation Studies Programs	11	13	7	4	35
		—	—	—	—	—
Total		2,200	2,550	1,500	750	7,000

Appendix A

1990-91 Program Adjustments Envelope

Brock

Concurrent B.Sc./B.Ed

This proposal involves a new undergraduate program in mathematics, science and education which is in the first year of operation. Funding is requested for adjustments to fully implement the program with minimal disruption to existing programs. Students successfully completing the four-year program will receive both a pass B.Sc. degree in one of the sciences (Biology, Chemistry, Physics or Geology) or in Mathematics, plus a B.Ed. degree which leads to Ontario teacher certification. The B.Sc./B.Ed. is a source of new registrations, but the program also seeks to address the shortage of scientists and technicians by improving the scientific background of teachers, and thus the quality of science and mathematics education for junior and intermediate students.

Carleton

Bachelor of Science in Environmental Science

This project involves a four-year honours program in environmental science leading to a B.Sc. degree. The program addresses two of Council's priorities. The introduction of environmental science represents a major shift in emphasis and capacity within Carleton's undergraduate science program. It is also a shift to an identified area of critical need. Specifically, the proposal addresses the Minister's priority of developing "teaching programs to meet the requirements for Ontario's scientific, technical or economic development, and programs to promote environmentally sustainable development."

The program, and the activities associated with it, will be phased in by means of adjustments that address the needs of successive years of the program's four-year structure. The introduction of new courses and the expansion of existing courses at the second, third and fourth year levels need not occur until academic years 1991-92, 1992-93 and 1993-94, respectively. This, in addition to a gradual increase in the size of successive first year cohorts, permits some flexibility in how the program's resource base is developed.

Bachelor of Social Work

Carleton is proposing that in 1991-92, a four year Bachelor of Social Work program be offered. This program which has been in planning for the previous five years, is a direct response to explicit community need and demand. It builds upon the existing long-established School of Social Work offering the Masters in Social Work.

Program components include basic social sciences courses (the School is located within the Faculty of Social Sciences) and new Social Work offerings in years one through four. Non-Social Work students will also have access to these courses as electives. The program meets the Minister's priority as regards to the needs of the Social Service sector.

Guelph

Environmental Engineering

This proposal is an 'adjustment' activity within a program which has been approved for funding. This submission addresses a Ministerial priority in that it is a teaching program meeting the requirement for environmentally sustainable development. Moreover, it also satisfies one of Council's priorities being a major shift in emphasis and capacity within an existing program.

The major objectives of this proposal are the enhancement of quality and the encouragement of institutional differentiation. This proposal addresses these goals through the provision of a number of well equipped laboratories and the further development of a program with a strong base in chemical/mechanical processes of treatment of industrial and municipal effluents. Program development includes the addition of biological sciences in the core curriculum, practical experience with computational sciences (eco-modelling, expert systems, data management, geographic information systems) and public policy issues awareness. The graduates from the program are not only expert as professional engineers but are attuned to concepts such as ecology, sustainable development and long-term, system-wide impacts of economic activity.

The project involves the renovation and re-equipping of laboratories, the substantial enhancement of library resources and the replacement of faculty and staff to permit the expansion of the new major.

Lakehead

Outdoor Recreation Growth

During the past 15 years, the Outdoor Recreation program within the School of Outdoor Recreation, Parks, and Tourism has evolved from a sport and municipal recreation program into a "value added" natural resource utilization program. The program emphasis encompasses various traditional recreation program planning and management elements in conjunction with four unique components: outdoor recreation activities programming, tourism, natural resources management and small business development. These unique components are expressed through the three streams which students may follow within the program: outdoor recreation leadership; parks and interpretation; and business administration. In addition, many outdoor recreation students pursue degrees in either geography or natural science in conjunction with the four year Honours Bachelor of Outdoor Recreation degree. Lastly, the School of Outdoor Recreation, Parks, and Tourism offers a certificate in Tourism and Recreation Resources Management in conjunction with the University of Waterloo. Many students pursue the certificate in Environmental Assessment offered by the Geography Department of Lakehead University. The program has been targeted as a growth area in the university given its unique program emphasis which deals with issues of economic importance, resource management and social rehabilitation in northern environments.

Laurentian

Cooperative Programs in Mining and Extractive Metallurgical Engineering

This project provides for the implementation of "cooperative" programs to be offered in a new, alternate, integrated work-term pathway in Mining and Extractive Metallurgical Engineering. This new format for presentation of these programs will be in addition to the current regular format offerings of the School of Engineering. The academic component of these programs is identical via either path. These programs provide for increased student numbers in the priority area of scientific, technical or economic development; and as well provide for a varied method of delivery to complement student needs and program quality. A period of four years will be required for the proposed programs to be fully implemented and to produce their first graduates.

Classes offered during the Fall and Winter semesters will accommodate both streams of students, except for the second half of their second year, and it is here that some of the incremental costs will occur as coop students complete their academic instruction in the summer term.

Statistics indicate declining numbers of qualified personnel in the minerals engineering sector internationally. Laurentian anticipates doubling the numbers of graduates in this field to provide an additional 15 graduates. While the impact on the provincial system of this increase would be minimal, within the minerals engineering field this would represent a significant increase, and hence will assist in alleviating a potential critical skill shortage in the future.

Algoma

Ojibway Language Instruction

This project will raise the status and profile of Ojibway Language offerings by providing full-time curriculum development and teaching support to Algoma's cross-cultural program initiatives. Regular offerings of a full three-year sequence of Ojibway courses within the Modern Languages Department will be possible. Cultural enrichment will be provided for aboriginal students. Balanced professional opportunities will be available for those seeking careers in social services, teaching, or other professions which serve a native or partially native clientele.

Nipissing

Native Teacher Certification Program

Nipissing University College is requesting Program Adjustment funds for a 3-year period beginning in 1990-91. The support is requested for a program to certify Native elementary teachers. The program fits with the priorities and objectives of the Program Adjustments Envelope. Specifically, this program addresses the priority to expand teaching programs in teacher education to students from under-serviced regions of the province and to a group traditionally underrepresented in the university sector. The program will also involve innovative modes of delivery. In addition, the program addresses several of the stated objectives of the Program Adjustments Envelope including the encouragement of institutional differentiation, the enhancement of quality, the consolidation of program offerings and the encouragement of inter-institutional cooperation. This pro rata submission is linked to Nipissing's competitive submission for 1990-1991.

Native Teacher Certification Program (Competitive)

Nipissing College is requesting Program Adjustment funds through the competitive portion of the Envelope for a 3-year period beginning in 1990-91. The support is requested to supplement pro rata funds requested for the program to certify Native elementary teachers. As indicated above, the program is consistent with the priorities and objectives of the Program Adjustments Envelope.

McMaster

Occupational Therapy and Physiotherapy Programs

This four-year proposal is for the expansion of two new undergraduate programs in Occupational Therapy and Physiotherapy. This is an extension of the previous Program Adjustments proposal submitted and approved in 1988 for the initial development of these two programs. Funds are requested for the adjustment of the two new undergraduate programs; specifically, the expansion phase which will see enrolment doubling from 30 to 60 students in each program. This expansion has been planned to meet the severe manpower shortages in these two professions in Ontario. Major advances are also expected in the development of clinical teaching sites based on non-traditional approaches to supervision and enhancement of community-based practice as a potential career choice for graduates.

Engineering and Society

This new program meets the second of the Minister's stated priorities: "the development of teaching programs to meet the requirements for Ontario's scientific, technical or economic development and programs to promote environmentally sustainable development." The Faculty of Engineering recently obtained University approval for an innovative new program in which undergraduate students would undertake a five-year degree program, in which a discipline-based curriculum is interleaved with a further year of studies emphasizing enquiry-based learning and a non-technical focus.

This institution views this as a timely and appropriate program as it will ensure that a new generation of engineering practitioners will be sensitized to the demands of contemporary society and the profound implications of the interaction of technology with society and the environment. Graduates of these programs will combine the technical proficiency of an accredited engineering program with greatly increased awareness of the dimensions of the profession.

Geographical Information Systems

This is a request for adjustment funds to equip a Geographical Information Systems (GIS) Laboratory in the Department of Geography. The laboratory, which is to be equipped over a two-year period, will allow for the training of much needed specialists in GIS and will also provide essential support for two new recently approved programs, the B.A. (Hons) Geography and Environmental Studies and B.Sc. (Hons) Geography and Environmental Science.

The establishment of the GIS laboratory in conjunction with the mounting of the environmental programs will address a critical manpower issue related to Ontario's scientific and technical development and the promotion of environmentally sustainable development.

McMaster notes that its Geography Department is widely acknowledged to be one of the leading Geography departments in North America and that many of its faculty are internationally renowned for their work in physical and human geography. The programs in environmental studies/science will represent a new emphasis and adjustment in the department's work. The development of the GIS facility will capitalize on the department's long-standing commitment to spatial analysis and quantitative study.

Multi-University Internship in Engineering (Competitive)

In the past two years, McMaster University, in conjunction with a number of industrial representatives, has worked to develop an internship program aimed at meeting two pressing needs of Canadian society: the enhancement of the technical capability of graduate engineers; and the involvement of industrial partners in the design and execution of graduate-level research projects which can be immediately transposed to an industrial setting.

The internship program, constituted as MIME (McMaster Internship in Manufacturing Engineering) currently focuses on the manufacturing sector, because of the urgent need in that area of the use of advance technology and the recognition that many Canadian firms lack engineering personnel who have the ability to select, implement and further develop that technology. The Internship model enables employee engineers to pursue postgraduate studies in approved Master's degree programs, within a concentrated format, under the supervision of a University faculty member. An alternate model where the industrial partner has no engineers for release to the project, utilizes graduate students from the University complement. MIME is administered by an Executive Director and guided by a Faculty Advisor and a Board of Directors, the members of which represent industry, university and government.

This proposal is for an extension of the internship program as a program adjustment activity, first to engineering disciplines other than manufacturing and, in the second and third years, to a multi-university consortium involving McMaster and the Universities of Toronto and Waterloo.

Ottawa

MD Program: Francophone Stream

The objective of this program is to introduce a Francophone stream in the MD program.

Following the 1989 report of the Faculty of Medicine's curriculum task force 2000, a commitment was made to undertake a major revision of the curriculum commencing in 1992. This strategic curriculum change would result in:

i) more integration between Clinical and Basic Sciences; and

ii) more independent and small group learning. The new pedagogical approach presents a unique opportunity for implementing a Francophone stream in the program and thus allowing Franco-Ontarians to follow a significant portion of their MD training in their language.

This project addresses a principal priority of development to meet the needs of Ontario's health care system, more particularly in the area of French language health care services.

It will also increase the accessibility of Franco-Ontarians to a academic program where historically they have been underrepresented. More generally, the curriculum reform will contribute to the enhancement of the quality of the MD program.

Masters in Social Work

This project will result in implementation of a Masters of social work program in French, with special emphasis on:

i) family and children's services; and

ii) health and social services.

The development of a Masters program in social work will contribute towards the expansion of teaching programs to meet the needs of Francophones in Ontario in the critical area of family services, health and social services.

It would also comply with the priorities of the French language Services Act which guarantees social and health services in French and which, as a result, creates the necessity to educate qualified personnel able to deliver services in French.

Once implemented this program will graduate between 20 to 30 students capable of serving clients in both languages. This project will also take the University of Ottawa a further step towards becoming a full-service University for Francophones in Ontario.

French Didactic Materials for Science Disciplines

The objective of this project is to prepare and publish textbooks and laboratory workbooks in French in the discipline areas of Biology, Chemistry and Mathematics.

Since 1988-89 the University has been engaged in a five-year plan of "parachèvement" in the French language for the undergraduate programs in Science. Full implementation of this plan requires the production of didactic material in French, since textbooks and lab workbooks are not always available in French.

This project contributes to Ontario's scientific development, and it enhances the quality of science education. It also contributes to the important institutional goal of facilitating the accessibility of science programs to Franco-Ontarians. Now that the programs delivered in French are becoming increasingly available, the project is geared to removing another barrier - the lack of didactic material in French - which often keep young Francophones away from the science programs.

Common Law Education Equity Program

The project is designed to increase the participation of those individuals who are presently underrepresented in Law Faculties, including Aboriginal Peoples, racial and cultural minorities, persons with disabilities, economically disadvantaged groups and mature students.

The program is headed by a Director whose tasks are to review admission procedures to remove barriers, to develop recruitment and out-reach strategies, to undertake an examination of the present law school curriculum, to ensure that discrimination is removed, and to assist professors in utilizing their materials to maximize the diverse opinions present in Canadian society.

An academic support program has been developed to address the needs of individuals admitted under the program, to bridge the gap between their personal experience and law school and to assist them to realize their full potential. An accessibility project has also been initiated to address the needs of law students who are print impaired (blind, partially sighted, dyslexic, motor disfunction or learning disability) and who are not able to utilize the same range of legal information as their colleagues. The project objectives include providing accessible legal information, such as textbooks and journals not currently available to disadvantaged groups of students. As well, the utilization of adaptive computer technology and the development of a data base will greatly enhance Ottawa's capacity to serve this community.

This project relates to an institutional priority that will result in improvements in the quality of undergraduate instruction through changes or innovative modes of delivery. The consolidation and expansion of the Education Equity Program would also contribute to the expansion of an important academic program to students from groups traditionally underrepresented in the University sector.

Bachelor of Education (Math/Science)

The purpose of this project is to increase the number of teachers of Mathematics and Science teaching in French in Ontario's schools.

The University of Ottawa expects to increase enrolment in the B.Ed. program by 100. The number of additional reserved enrolments for students selecting to become Math/Sc.(in French) teachers is expected to be 60 students. While moving toward that total, the Faculty of Education in consultation with the Faculty of Science, will also develop an alternative route for admission to the B.Ed. program which will encourage more students currently pursuing Mathematics and/or Science to embark upon a teaching career in the Ontario's school system.

This project clearly reflects the development of teaching programs towards the needs of Ontario's public education system,in particular in intermediate/senior mathematics and science. Furthermore the increased enrolments in B.Ed.(Math/Sc.) in the French language will allow the University to fulfil its obligations towards the Franco-Ontarian community by significantly increasing the number of fully qualified francophone educators teaching in these subjects. This will eventually increase the accessibility of the francophones to post-secondary education programs.

MSc Speech Pathology and Audiology (Competitive)

The objective of this program is to complete the development of a 2-year MSc program with concentration in Speech Pathology and Audiology in French.

The speech pathology component of this program is to be a joint program between the University of Ottawa and Laurentian University, offered simultaneously on both campuses using the distance education multi-media approach. The University of Ottawa will reserve a certain number of places for students from Laurentian University, who intend to concentrate in Audiology at Ottawa.

This project will contribute to the expansion of health programs particularly in the rehabilitation sciences. The project addresses the need for qualified health science manpower. Once implemented, the program will graduate between 20-25 speech pathologists and 7 audiologists each year. This inter-institutional program will serve Franco-Ontarians and other Ontario residents in an area of critical need.

Queen's

Extension of Early Retirement and Faculty Renewal Program to Support Shift in Emphasis in the Sciences

This proposal is being advanced in support of the Minister's priority concerning "teaching programs to meet the requirements for Ontario's scientific, technical or economic development and programs to promote environmentally sustainable development." Science curricula is undergoing significant change as new technologies and new fields of knowledge emerge. In the Applied Sciences, for example, a shift in emphasis toward emerging fields of optical communications and biomedical electronics have resulted in a declining focus on older technologies of hydraulic engineering and blast furnace technology. The shift towards emerging new areas results in significantly different staffing demands. When combined with the increased enrolment in the sciences over the past few years and the projected increases through to the mid-1990s, it is expected that the sciences will be placed under significant teaching pressures.

Program Adjustment funds have been requested to support a continuation of the early retirement and faculty renewal program through to December, 1993. The extension of this program will assist in meeting the changing curriculum requirements and accommodating increased enrolment demand in the natural, applied and life sciences. This initiative will also provide greater opportunity for program improvement and employment equity. The shift in enrolments supported by Program Adjustment funds will assist the institution in shifting the balance of intake in a manner consistent with the Corridor Negotiation plans, which involved enrolment growth in science, engineering and nursing.

Toronto

Computer Engineering Program

The project involves a new undergraduate professional program, Computer Engineering, which will be jointly sponsored by the University of Toronto's Electrical Engineering and Computer Science Departments. The introduction of the program is in response to strong student demand and strong societal need.

The project emphasizes the following areas of study: the architecture, organization and design of computers and computer systems; hardware technologies required for computer construction; and software technologies used with computer hardware.

The project meets the following objectives: the enhancement of program quality; the consolidation of program offerings; enhanced flexibility in making significant structural changes in program offerings; and inter-institutional cooperation. In the steady state, the project will represent new capacity for 240 Computer Engineering undergraduates and 28 graduate students in Electrical Engineering and Computer Science.

Physical Therapy Learning Resource Facility - Phase I

The project involves the development of a Learning Resource Facility by the Division of Physical Therapy within the Faculty of Medicine's Department of Rehabilitation Medicine. The project is in response to strong societal need. It aims to change the emphasis in physical therapy education to respond to the aging of the population, the shift from institutional to community care and the need for increased training at the graduate level.

This phase of development of the Learning Resource Facility will require the purchasing of equipment and computer resources.

The project meets the following objectives: the enhancement of program quality; the consolidation of program offerings; and increased institutional flexibility to make significant structural changes in program offerings. The proposal will not affect the number of undergraduate students in Physical Therapy but will attract more graduate students in training and research in Rehabilitation.

Social Work Research Office

This project will be carried out by the Faculty of Social Work and addresses the Minister's priority for placing resources into programs that meet Ontario's needs in the area of social work. The project aims to achieve a strong empirical foundation for graduate programs, the development of two new components in the Master of Social Work program and the expansion of Ph.D enrolment.

The main requirements for the project are computer resources, audio-visual equipment and two researchers. The researchers will provide instruction to graduate students on research methodology and statistical computation both individually and through research courses. The project meets the objective of enhancing the present quality of the masters program through the use of advanced technology in education and through the development of two new masters-level courses.

Improving the Undergraduate Learning and Teaching Experience

The project is a cooperative effort involving the Office of the Vice-President and Provost, Faculties and campus groups sponsoring programs on teaching quality. It addresses needs in many areas of teaching. It also addresses the needs of groups traditionally underrepresented in the university sector and the institutional priority of fostering improvements in the quality of undergraduate instruction.

The project aims to improve the quality of undergraduate learning and teaching by allocating resources to a Teacher Development Service, a Counselling and Learning Skills Service and to computer activated instruction. It will contribute to the professional development of instructors at all career stages from graduate students as teaching assistants to senior faculty.

The project meets the following objectives: enhanced teaching and learning quality; and enhanced inter-institutional cooperation. The project is not intended to alter enrolments. Rather, it is related to enrolment in that it reflects concern that size and a research orientation not interfere with the quality of instruction offered.

Trent

Collaborative Trent/Sir Sandford Fleming College Initiative in Natural Resources

This project seeks funding to develop linkages between cognate areas of the academic programs at Trent University and the School of Natural Resources at Sir Sandford Fleming College (SSFC); specifically, the Geography and Environmental and Resource Studies programs at Trent, and the Centre for Advanced Resource Management and Assessment and the Forestry Technician and Agriculture Technician at SSFC. Through the project both institutions will optimize the use of complementary facilities and capabilities. Structures will be developed to increase considerably opportunities for students to move between them through integrated programs (concurrent and/or consecutive). Mechanisms will also be developed for faculty exchanges between the two institutions.

The project will provide Trent students and faculty with access to equipment and technical expertise that would be very expensive for any university to provide in-house. It will thus enhance the quality of two of Trent's academic programs and represent a significant step in developing academic linkages with the local community college.

Waterloo

Faculty of Engineering Enrolment Expansion

This project undertakes to support increased enrolment in Electrical Engineering and to expand Environmental Engineering options with an associated enrolment increment. This adjustment project responds to the need to expand engineering programs in these two areas.

To meet the greater demand for such graduates and to accommodate Waterloo's corridor objective of seeking to increase undergraduate enrolment in engineering and science, 60 additional students were admitted to Electrical Engineering in Fall, 1990. This significant increase in enrolment has serious short-term ramifications that require adjustment funding. The Faculty is also in the process of expanding the available option package dealing with environmental concerns on a faculty-wide basis in 4 theme areas: waste management; thermal processes; environmental decision modelling; and environmental systems modelling. This will be accompanied by an enrolment increase of 40 students per year for environmental training.

These activities address the Minister's priorities. Both involve significant expansions of teaching programs to meet the requirements of Ontario's technical and economic development. The environmental expansion will help to promote environmentally sustainable development. These adjustment activities address Council's priorities as both activities represent a major shift in enrolment. Moreover, the environmental activity represents a major shift in emphasis within programs.

Western

Off-Campus Part-Time Bsc Nursing

Western's Off-Campus Part-Time B.Sc.N. program is directed toward providing degree opportunities to practising nursing professionals unable to participate in full-time or on-campus study. Baccalaureate education for registered nurses is a priority of the profession and a commitment of Western's Faculty of Nursing. This program is jointly sponsored by the Faculty of Part-Time and Continuing Education and will fulfil the University's mandate as a regional educational resource.

The proposal indicates that there are over 800 prospective students who have indicated strong interest in the program. Within Western's catchment area, there is an eligible applicant pool of over 17,000 practising, non-degree nurses. Incremental program growth has been set at 20 students per course, through sequenced development over years 2,3, and 4. Students were not enroled in 1990-91.

Sustainable Development

Western's Sustainable Development Initiative is a joint proposal by the Faculty of Social Science and the School of Business Administration. It will support the teaching of "Managing Sustainable Development" in the MBA program and make possible expanded course offerings in Geography's BA and B.Sc. programs (Environment and Resource Management), in Economics, and in Political Science, including a component in the Master of Public Administration program.

Efforts in all these areas capitalize upon directions already being pursued by the various departments, given impetus to extend because of the obvious considerable importance of both training and active research into the ecological implications of industrial and habitational expansion. The initiative approaches these issues in a variety of ways, with focus upon the environmental and resource management aspects in Geography, the political economy and public policy areas in Political Science, the energy and natural resource economics in the Department of Economics, and the basic challenges of managing sustainable development in the School of Business Administration.

The Sustainable Development initiative represents a major shift of emphasis and capacity within existing programs, both at the undergraduate and the graduate level. Institutionally, Western views the initiative to be important in enhancing cooperation across departmental and Faculty lines in an area of study vital to the future of society--and in discipline areas where the university is particularly distinguished. All are elements of currently-offered degree programs and are eligible for funding.

Enhancement of Medical Education

This project involves enhanced instructional and laboratory capabilities in the area of recombinant DNA study in the Departments of Biochemistry and of Microbiology and Immunology. Also, the Department of Obstetrics and Gynecology is developing a teaching format which stresses the empathy and sensitivity of students in clinical situations.

This proposal will increase the effectiveness and thoroughness of professional education for future practitioners in the health care and medical sciences. Funding is specifically sought for technological upgrading of resource material and for support of innovative and appropriate teaching formats. Although some additional numbers of students will be accommodated in the biotechnological studies areas within the two departments, the adjustment activity is basically an evolution and development of program emphasis and course delivery. The objective is to provide the highest possible quality of advanced training for Ontario's prospective health care practitioners.

Expansion of CAD/CAM/CIM - Engineering (Competitive)

This program expansion is an evolution of capability in an area of Mechanical Engineering. It reflects technological developments in the areas of Computer-Assisted Design and Manufacturing and a further extension into Computer-Integrated Manufacturing. The expanded resources will enhance the university's Engineering program and provide opportunities for cooperation with business and industry. With additional faculty and facilities, enrolment restrictions can be eased and the Manufacturing option can be made available to students from other Engineering Departments.

The proposal involves a shift in resources to the Manufacturing option within Mechanical Engineering. It also aims to establish a partnership between the university and Fanshawe College to establish a well-equipped Manufacturing Resource Centre in London.

Wilfrid Laurier

Music Therapy Program

This proposal is submitted as an adjustment project to enhance the quality of the Honours Bachelor of Music Therapy degree program at Wilfrid Laurier University and to encourage inter-institutional cooperation by:

- reducing capacity restrictions;
- sustaining a university-based music therapy clinic for supervised undergraduate practical skill acquisition as students and faculty meet rehabilitation needs of emotionally and physically handicapped persons in the community;
- fostering and implementing mutually beneficial province-wide, cross-institutional cooperative effort in the training and utilization of music therapists as interns and graduates within the health care delivery system; and
- meeting the discipline-wide critical need for validated instruction in improvisation techniques, a core skill for effective music therapy intervention, with international, cross-university implications for benefit to general music programs as well.

Windsor

Integrated Science and Education Program

The proposed program involves an integrated training in Science, Technology and Society (STS) and Education over a four-year period. A graduate under this program will have the necessary teachable subjects and fulfil the requirements of the Ministry of Education for certification. The new thrust in the B.Sc. (STS) and B.Ed. integrated approach is to train teachers who will acquire critical thinking skills and transmit those skills to elementary and high school students who can better appreciate the impact of science and technology on society. Graduates with a B.Sc. (STS) and B.Ed. degree will meet the needs of a shortage of science teachers in the Province of Ontario. In the long, run training better science teachers will contribute to changing the attitudes of young people towards science, mathematics and technology and develop a sustaining interest in them.

York

Expansion of Existing Degree Programs in Pure and Applied Science

Significant expansion in the size and range of activities offered by the Faculty of Pure and Applied Science will include enhanced efforts to recruit excellent students; the development of special modules of instruction in areas of particular relevance to the problems and challenges of the 21st century, including thus far space and communications science, atmospheric chemistry, and biotechnology; and the introduction of a co-operative work/study mode of delivery whereby one or more terms will be spent working in government or in the private sector. These activities entail significant costs in terms of laboratory and computing equipment, the appointment of new faculty in the areas of specialization, and the appointment of administrative personnel and a dedicated associate dean. The priorities of Government and Council are served in the extension of programs in an area of recognized critical need. The goals of balance and diversification articulated in the university academic plan are also addressed.

Ontario Institute for Studies in Education

Development of Masters for CAATs

The intent of this development project is to design a graduate program tailored to the needs of faculty and staff at Ontario's Colleges of Applied Arts and Technology (CAATS). Specifically, the focus will be on program design; the identification of potential instructors from Ontario universities and CAATs; cost analysis concerning potential fee for service; delivery modes; and inter-institutional collaboration.

It is expected that following development activities planned for 1990-91 and 1991-92, OISE will be in a position to initiate the documentation for the approval of a new program. It is also anticipated that this initiative will involve the collaboration of more than one institution.

Enhancement of OISE Distance Education Programs

The intent of this proposal is to enhance Distance Education capabilities in order to meet the growing need to provide graduate programs to students distant from Toronto. Specifically, a Coordinator will be appointed and a computer and other resources will be purchased to be placed in off-campus locations, such as OISE Field Centres. Additional resources will permit the institution to enhance the interactive nature of the courses and increase the number of locations which receive such courses. This initiative will extend access to practitioners in diverse locations and expand the offering of complete programs primarily through distance modes.

Ryerson Polytechnical Institute

Enrolment Expansion and New Delivery Model in Nursing

Over the next three years Ryerson expects an increase of approximately 75

FFTEs in Nursing enrolments. Because of the low student to faculty ratios in the clinical component of the curriculum, the marginal cost of enrolment expansion is much higher than in other programs. In years I, II, and III of the basic program clinical student to faculty ratio is 9:1; in year IV of the basic program, and year II of the Post-RN program the clinical student to faculty ratio is 12:1. Clinical instruction in Nursing programs is conducted in clinical agencies -- hospitals, nursing homes, community health offices -- with faculty directly involved in the instruction, supervision, monitoring, and evaluation. Nursing personnel in the agencies do not play a major direct role at present. However, the Ryerson School of Nursing wishes to implement a collaborative model of clinical instruction similar to that used by other Ontario Schools of Nursing, but modified to be consistent with the program's particular educational objectives. The model will be applied to clinical courses in year IV of the basic program and year II of the Post-RN program. As a result, it is estimated that the effective student to faculty ratio in these courses will increase from 12:1 to up to 25:1. Essentially in the collaborative model selected agency nursing personnel are designated as clinical assistants or associates and play a direct role in the clinical instruction and evaluation of nursing students.

This initiative will enable the School of Nursing to: identify, select, and train an initial pool of clinical assistants in the agencies; develop workshops and teaching manuals to be used in the training of clinical assistants; establish a computerized data base and tracking system of all student placements by program level and semester, cross-referenced with agencies, and clinical assistants' qualifications.

Expansion of Aerospace Engineering

Program Adjustment funds have been requested to support a 30% increase in enrolments and to make certain adjustments in a critical component of laboratory curricula. Historically, the program has accommodated year 1 enrolments of 54 full-time students. In Fall, 1988 the quota was increased to 72 and further to 84 in Fall, 1990. The program's current plan is to maintain its enrolments at 84 on a permanent basis. As a result of these changes, enrolments are expected to increase overall by 53 students.

The requested Program Adjustment monies will be used to add five new student experiments and provide opportunities for senior student projects in areas of study of increasing importance to industry. Specifically, students will learn the use of modern measurement techniques in examining and testing fracture and fatigue of engineering materials as applied to aircraft stress analysis and design. Fracture detection using modern measurement techniques is of increasing importance to aircraft design, inspection and maintenance.

Expansion in Applied Computer Science

The computer-related curriculum of this program is centred around projects and assignments which use Ryerson's mainframe and three student computer laboratories. The three student computer laboratories include: a micro-computer instructional laboratory involving stand alone networked computers; a MIPS mini-computer facility with 14 stations; and a MicroVAX mini-computer facility with 14 stations. These facilities, even at current enrolments, comprise an insufficient number of stations to handle the combined needs of the formally scheduled instructional sessions, and the unscheduled use by students for completion of assignments and projects. With the planned expansion for an increase from 84 to 124 in year 1, the program will require 20 to 22 stations in each of the above three student laboratories over the next three years. The plan is to use the Program Adjustment monies to support this expansion.

Ontario College of Art

Enhancement of Design for Social Needs Program

The project involves the enhancement of the Design for Social Needs Program. This initiative will provide a more diversified curriculum for a specialized study into the development of design solutions to meet the special needs of society.

Specifically, Program Adjustment funds are requested to support the enhancement of curriculum in the following areas:

- the Physically Disabled;
- the Elderly;
- Environment issues; and
- Infants and Children.

Funds will also support improvements to studio work space for students and improved library resources for information and research.

Appendix B

1991-92 Program Adjustments Envelope

Brock

B.Ed. Technological Studies

This proposal represents a request for support for a technological program at the Intermediate and Senior Levels of the Pre-Service program presently being offered through the Faculty of Education at Brock University. The proposal meets a critical need for technology teachers in Ontario's schools through an innovative program involving inter-institutional cooperation between Brock University and Mohawk College of Applied Arts and Technology. Support is being sought for the adjustment costs associated with program start-up and the initial offering.

Carleton

Telecommunications Engineering

Engineering telecommunications is planned as an expansion of teaching programs to meet the requirements for Ontario's scientific, technical and economic development. Telecommunications engineering is planned for several important reasons. First, telecommunications is vital to the development of a large, sparsely populated country such as Canada. The prospect of integrated audio and video connecting remote areas with traditional centres of commerce, such as Toronto, is important for regional development. Secondly, Ottawa is the home of Bell Northern Research, the research arm of Northern Telecom/Bell System which is in turn the fourth largest telecommunications company in the world.

Initially the Telecommunications option will be limited to forty new high standing students per year (plus a few part time students) for a total of about one hundred twenty to one hundred thirty in all four years when fully implemented. A key senior faculty member specialist in telecommunications will be hired in 1991-92 to lead the detailed planning. At the same time, an Industrial Experience Program (IEP) office will be established to provide integration of the program with the telecommunications industry by arranging student work term experience. Beyond this, the first forty students will be admitted to the common first year of the engineering program. Further faculty, technicians, a secretary and equipment will be added in 1992-93, 1993-94, and 1994-95. New faculty will be expected to take part in forward planning of the program as they are added to the program. The first graduates will appear in May 1995.

Environmental Engineering

Program Adjustment funds are requested to support the development of an Environmental Engineering program.The program derives its uniqueness by the provision of a sound background in the environmental engineering sciences and environmental aspects of chemistry and biology. The training of students in the areas of conceptualization, mathematical modelling of problems in environmental engineering, environmental impact assessment studies and environmental planning and decision-making is considered to be a strong asset of the proposed undergraduate program. Graduates with the proposed background are expected to play key roles in the future activities associated with the development of the profession of environmental engineering in Canada.

Faculty and staff have been hired and will be hired in 1991-92 to fully develop the proposal. The first students are expected to be admitted in 1992-93. An Industrial Experience Program office will be established to provide integration of the program with industry by arranging work term experience.

Industrial Experience Program

The Industrial Experience Program will increasingly become a component of education for engineers at Carleton University. The existence of the program is expected to yield increased enrolment. A position placement office is to be established in the Faculty of Engineering consisting of a senior faculty member to establish contacts for placement positions with potential employers, a support staff person to administer the program, and a secretary. Initially, placement positions will be arranged for students in all programs. Students will spend 16 moths in the workplace. Eventually, 12-month work-terms beginning in January will be arranged. Preliminary planning and experimentation with the program is underway. Program enhancements planned for 1991-92 and 1992-93 will continue as initiatives in Environmental and Telecommunications Engineering are developed.

Joint PhD program in Computer Science (Competitive)

Carleton University, together with the University of Ottawa, has introduced a PhD program in computer science. The program has been approved for funding, commencing with the 1990-91 academic year. Funds have been requested to support "adjustment" activities within this new program.

The program addresses the Minister's priorities of "programs to meet the requirements for Ontario's scientific, technical or economic development" and "initiatives (particularly those involving joint, cooperative efforts among institutions) which enhance the extension of programs in areas of critical need to students from underserviced regions of the province". Moreover, it addresses Council's priority of "new..cooperative or joint inter-institutional programs."

The eligible activities for which funding is sought are as follows:

- purchase of equipment to support an expanding research and graduate studies program in computer science;

- appointment of three new faculty members in the School of Computer Science; and

- appointment of a software engineer to provide added support for the research computing infrastructure of the School of Computer Science.

The objectives which will be met by this project are enhanced quality, consolidation of program offerings, and enhanced inter-institutional cooperation.

Guelph

Community Health Promotion

This proposal involves the development of a new undergraduate major in Health Promotion within the existing Applied Science (B.A.Sc) program together with a post-baccalaureate diploma option. The proposed program is in an identified area of critical need and involves the development of teaching programs to meet the needs of Ontario's health care system and has specific though not exclusive reference to nursing. In addition, it represents a substantial extension and enhancement to the existing emphasis and capacity devoted to community health concerns within the Applied Science program.

This development activity will require substantial faculty resources in order to undertake the development of course/program curriculum, the development of course delivery for the distance education mode of delivery and to allow the re-orientation and development of existing courses to better accommodate current public policy issues, data principles and theory relating to community health and health promotion including the management of health promotion services. In addition, faculty resources are necessary to develop relationships with hospitals and selected public agencies where practicum and field work within specific courses will be located.

Community Nutrition Programs

The adjustment activities in this proposal involve an expansion in both the undergraduate and graduate teaching programs to meet the needs of Ontario's health care system. Program quality will be enhanced through an increase in the specialized course offerings directed specifically at the public health nutrition field, a field in which Guelph is already acknowledged as a leader. At the undergraduate level, through the increase in presently available distance education course offerings and also a new co-operative education option, these adjustment activities allow for increased accessibility to portions of the program and offer a nationally unique and innovative mode for enabling professional accreditation and employability of graduates in community nutrition.

The work of curriculum and course development, the development of courses for distance teaching and the development of the co-operative program including the selection and preparation of collaborating institutions for the co-operative work term will require substantial faculty resources. In addition, in order to provide a quality program, the project calls for equipment and computer resources as well as a modest enhancement of library holdings in the community nutrition area.

Lakehead

Increased Intake in Nursing

In response to the Minister's priority of "teaching programs to meet the needs of Ontario's health care systems", Lakehead University is submitting a proposal to increase enrolment in its Nursing program. To support this initiative, the university must address the ongoing problem of finding placements for clinical practice in a community that shares such resources with the diploma nursing program and nursing assistant program at Confederation College. As a resolution to this problem, the School of Nursing is restructuring the clinical component of the post-basic nursing program. With the revision, clinical experience for these students will provide for individual rather than group clinical practice and will draw on the professional experience of students who are registered nurses licensed to practice in Ontario. This will allow the School to extend its clinical placements to a greater variety as well as a larger number of clinical sites, free up group positions currently held by post-basic students and increase the number of students admitted to the School. This will offer mature students an enhanced educational experience with personalized clinical practice experience. The university will continue to meet its mandate of urgently needed qualified professionals available to deal with pressing health care needs. In addition, the planned expansion of enrolments is necessary for the university to meet its Corridor plans.

Laurentian

Clinical Psychology - Extension of the PhD in Northern Ontario, English Language (Joint program with Ottawa)

This project provides for program adjustment to the University of Ottawa's Ph.D. in Clinical Psychology in a number of ways. It will embrace a broader population in northern Ontario in an area of critical need; specifically providing access to fully qualified psychologists practising in the health and social services sectors. It will extend the current joint activity on this program in the French language to include the English language. It will also enhance local access in Northern Ontario to doctoral studies in clinical psychology by employing various new delivery modes, such as teleconferencing and cooperative faculty activities providing for local clinical and thesis supervision.

By building upon the current program at the University of Ottawa and the expertise gained through the implementation of the French language joint program, this expansion provides for effective use of provincial resources and system capacity. It enhances access to needed doctoral qualifications for professionals currently practising in northern Ontario. Although the program may require up to two semesters in residence at the University of Ottawa, the major portion of the activities related to the program - clinical placements and doctoral theses - will be supervised locally in the North.

To assist in this expansion, funding is sought to defray the addition of one faculty member in Psychology at Laurentian and assist with communication costs, fees for theses dissertations, library and research materials and equipment, including computer applications. The University of Ottawa has submitted its own program adjustment request in regards to their faculty and support requirements.

Algoma

Conversion from Commerce and Accounting to Business Administration

This funding will assist with the conversion of the Bachelor of Commerce transfer program and BA(Accounting) program to a full 4-year Bachelor of Business Administration program. The urgent need is for additional full-time faculty, the normal funding for which will be delayed for four to six years beyond the period in which the costs must be met. Quality of the program will be greatly enhanced by replacement of sessional faculty by full-time scholars as funds permit. This request is for one such replacement.

The Business Administration program was identified by Council in Advisory Memorandum 88-VIII as a promising area for development at Algoma. This initiative will enable Algoma to replace two existing programs with a more satisfactory program which will support economic development in the Algoma region.

Nipissing

Expansion of French Language Linguistic and Literature Courses

The project intends to expand French language linguistic and literature course offerings within the Humanities Division at Nipissing University College. This project and its planned expansion of course offerings in French/Français is designed to provide the prerequisite baccalaureate preparation needed to enter the Faculty of Education's pre-service teacher education program as potential FSL teachers. It is anticipated that with a full-time staff, increased timetabling of course offerings and preferred admission for Nipissing graduates, there may be a 100% increase in Nipissing BA students, qualified in French/Français, entering the B.Ed. program and pursuing FSL qualifications.

McMaster

Biology-Pharmacology Program

Funds are requested for the expansion of a new Biology-Pharmacology program. This program received Ministerial approval in June, 1989 and was initiated in September 1989. It is a joint program between the Biology Department (Science) and the Division of Physiology/Pharmacology (Health Science). It is a five-year Co-op program involving a cooperative component placing students in national and provincial laboratories and in industrial laboratories (pharmaceutical) and in university research laboratories. The Program Adjustment proposal will support an expansion of intake to 25, an expansion of the methods course to a full year, and the introduction of a new course in "Pharmaco- and Toxic-epidemiology". This request is for support of the academic component of the program.

Social Work Practice

In line with the priorities of the Program Adjustment Funding Envelope, the School of Social Work proposes to develop a graduate program concerned with the critical analysis of social work practice, building on its 17 year experience with a graduate program dealing with critical analysis of social welfare policy.

Project funds will be used primarily to enable one senior and one junior faculty member to each spend time over a two-year period to develop this new graduate program. Activities will include determining the feasibility of utilizing social and health service resources as hosts for student thesis research. In addition, a half-time support staff position to serve the development process is included; this would be a clerk-typist working 17.5 hours per week.

The University's contribution relates to library acquisitions, travel funds, office space and furniture, and computer and VCR equipment.

Ottawa

Clinical Psychology - Extension of the PhD in Northern Ontario, English Language
(Joint program with Laurentian)

The purpose of this project is to initiate the extension in the English language of the Doctoral program in clinical psychology, to Northern Ontario. The extension of this program in French has been fully implemented since September 1988. While the Ph.D. (Psychology) remains a University of Ottawa program, Laurentian University participates in its extension to Northern Ontario.

This proposal will permit a practitioner satisfying the requirements for admission to the doctoral program to complete a major portion of the academic requirements while continuing to reside in Northern Ontario. Implementation of this program will increase the number of fully qualified professional psychologists rendering health and social services in various Northern Ontario locations and will therefore clearly help to meet an Ontario's critical area of health care needs. This project also involves an innovative mode of delivering graduate teaching program. Laurentian University is also requesting support, within its own part of the 1991-92 Program Adjustments Envelope, to consolidate its participation to the project.

Physiotherapy - Heart-Institute Program

The objective of this program is to increase the number of physiotherapists trained in cardio-respiratory physiotherapy. This will result in a shift in the physiotherapy program enrolments toward the area of cardio-respiratory physiotherapy.

An essential component of this program consists of clinical internships undertaken by students during their summer sessions and their third and fourth year. For this purpose, close relations have been established with various hospitals of Ontario and elsewhere. Building on its strength, the University plans to particularly link this program and its clinical components at the University of Ottawa Heart-Institute, located at the Civic Hospital, in order to develop cardio-respiratory physiotherapy course and to significantly increase the number of its students clientele trained in this critical field.

Given the importance of coronary diseases in our modern society, the increase in the number of physiotherapists specially trained in this area will benefit the Ontario health care delivery system. The relevance of the project is further increased by the fact that the physiotherapists trained in Ottawa will serve equally well the francophone and the anglophone population.

Computer Engineering

Program Adjustment support is requested for the implementation of a French stream within the B.A.Sc. (Computer Engineering) program. The university undertook to implement the French stream at the same time that funding approval was obtained by the Ministry. Since its inception, it was understood that the completion of a French stream would necessitate the appointment of two additional technicians and a secretary. It is for these particular appointments that funds are requested under the 1991-92 Program Adjustments Envelope.

This proposal is in conformity with the established Program Adjustment priorities and objectives, as it contributes to the meeting of "requirements for Ontario's scientific development." The present project also corresponds to a very important institutional goal, which is to facilitate as much as possible the accessibility of the science and engineering programs to Franco-Ontarians.

Bachelor of Education (French As A Second Language) (competitive)

This proposal is part of the University's attempt to increase the number of teachers of French as a second language in Ontario's secondary schools.

The University of Ottawa expects to increase its enrolment in the B.Ed. program by 100. The number of additional reserved enrolments for students selecting to become educators, teaching French as a second language, is expected to be 40 students. While progressing towards this total in the B.Ed. program, the Faculty of Education and Arts will finalize a program model which will encourage students in Linguistics and Second Language Learning to embark upon a career as French (second Language) teachers in the Ontario school system. The University expects that the program model developed will attract increasing numbers of students pursuing French as a second language to embark upon a teaching career in Ontario schools.

This project reflects the development of teaching programs towards the needs of Ontario's public education system, in particular towards producing more teachers of French as a second language. Furthermore the addition of the reserved enrolments for "Teaching French as a second language" will permit the University to fulfil its specific mission pertaining to the promotion of bilingualism.

Queen's

Instructional Development Centre

Program Adjustment funds have been requested to support the development of an instructional development centre for curriculum and teaching skills development. The objectives of the centre include: an increase in the quality of teaching and learning; improved courses and curricula; the development of better teachers; a confirmed institutional commitment to undergraduate and graduate education; and improved academic effectiveness and efficiency. The emphasis of this strategy is on the development and nurturing of existing and new faculty.

Toronto

Bachelor of Health Science

The project involves a new professional undergraduate program which is a joint program of the University of Toronto's Woodsworth College and the Faculty of Medicine's Department of Health Administration. The program will consist of 20 full courses from the following areas: General Arts/Education, Basic Management and Quantitative Disciplines and Health Administration. A period of supervised fieldwork will also be mandatory.

This proposal is in response to a human resources challenge within the Province's health care system. The increasingly complex organization of the health care delivery system has led to the development of supervisory and middle management specializations for nurses, medical technologists and others which have not always been accompanied by formal training. This project aims to meet the demand for formal training for first-line and middle managers in the health care system.

The project meets the following objectives: enhanced program quality; the consolidation of program offerings and provides institutions flexibility in making significant structural changes in their program offerings. The project will begin with an enrolment of 30 FTE students and will have grown to 88 FTE students by the time steady state is reached.

PhD in Nursing Science

The Ph.D program in Nursing Science will be offered by the University of Toronto's Faculty of Nursing. The project is in response to strong societal need and strong student demand resulting from the increased number of students with prerequisites for doctoral studies in Nursing.

The project aims to provide students with the opportunity to pursue doctoral education in Nursing in Ontario since there are currently no Nursing Ph.D programs available in Ontario or in Canada. The program will concentrate on five areas: nursing and healthy individuals, families and communities; nursing and acute illness/stress; nursing and long-term illness; nursing administration; and nursing and patient decision-making.

The project is a new offering in the proposal stage and does not have funding approval. The request for funding is largely to support the salaries of two additional faculty members to develop the program. The program will begin in 1992 with an enrolment of 6 students. Intake will continue at this level until 1997, when it will increase to 10 students. In steady state, program enrolment will be 40 students.

The project meets the following objectives: enhances program quality and provides institutions flexibility in making significant structural changes in their program offerings.

Physical Therapy Learning Resource Facility - Phase II

The project involves the development of a Learning Resource Facility by the Division of Physical Therapy within the Faculty of Medicine's Department of Rehabilitation Medicine. The project is in response to strong societal need. It aims to change the emphasis in physical therapy education to respond to the aging of the population, the shift from institutional to community care and the need for increased training at the graduate level. Phase I of the project, initiated in 1990-91, emphasized the acquisition of the necessary equipment.

The second phase of development of the Learning Resource Facility will require support for faculty salaries, additional computer stations and equipment. This financial support will enable the retraining of current faculty and development of new courses.

The project meets the following objectives: the enhancement of program quality; the consolidation of program offerings; and greater institutional flexibility to make significant structural changes in program offerings. The proposal will not affect the number of undergraduate students in Physical Therapy but will attract more graduate students in training and research in Rehabilitation.

Trent

Innovation in Science Education

In the last decade, honours science enrolments in Ontario universities have declined by 25%. Social Science researchers conclude that students at all levels of education think science is too difficult.

This innovative science education project creatively addresses critical needs in science, using the joint expertise of two institutions which are already involved in a collaborative teacher education program.

The project will:

- broaden teacher education student awareness of how science is actually learned;
- develop alternate procedures and materials for science teaching at all levels;
- encourage more students to study science; and
- broaden the science knowledge of university arts students.

Waterloo

Analytical Laboratory of Environmental Programs

The Waterloo Environmental Science Program is designed to address "real world" environmental issues in the context of undergraduate instruction. The senior thesis project involves teams of students working on solutions for environmentally-related problems of current interest. All aspects of the problem, including the sociological, financial and regulatory issues, as well as those that are strictly scientific, are addressed in these projects. Two criteria are used in choosing these problems: the possibility of an identifiable result within a well defined timeframe; and current environmental relevance. In almost every case, the latter requirement implies the ability to carry out accurate and independent chemical analyses to establish the existence and the extent of the problem. The Program Adjustment funding will provide the basic components of an analytical laboratory for this purpose. Such a laboratory must have capabilities in both water and air analysis. The essential instrumentation for this purpose includes atomic absorption spectroscopy and GC Mass Spectroscopy for analysis of trace components in water and diode laser instrumentation for air measurements.

This request for funding meets the following priorities guiding the Program Adjustments Envelope: to develop or expand teaching programs to meet the requirements for Ontario's scientific, technical or economic development and to promote environmentally sustainable development; and to accommodate shifts of emphasis within programs.

Expansion of Rhetoric and Professional Writing Program

The Department of English is shifting a third of its undergraduate and graduate masters programs from a conventional literature option to the new Rhetoric and Professional Writing option. This change meets significant needs within the private sector for highly skilled and educated writers as well as in a field of education for professionals who are well trained in the theory and teaching of writing. This program adjustment requires the addition of a full professor of Rhetoric who can oversee the development of new curricula and the hiring and training of new faculty members, as well as an assistant professor of composition theory and Professional Writing.

The university has requested funding of $179,000 to bridge the hiring of these professors from July, 1991 to the retirement of another professor in July, 1993. The University will provide the funds over the same period for the early retirement of a professor.

Gerontology

The proposal speaks to the Minister's priority of the development of teaching programs designed to meet the needs of Ontario's health care and social service systems. Waterloo offers the only funded Masters program in Ontario. There is considerable demand for graduates of this program due to various initiatives of Ontario and the federal government to deal with the aging population. The proposal is an adjustment project that deals with bridge funding to hire a new faculty member in gerontology who will replace a retiring professor in 1993. Bridge funding is necessary as the program is relatively new and courses are still being designed and implemented. Secondly, well educated professors in gerontology are difficult to find because of almost a dearth of PhD programs in the area. Typically, someone must be hired from a more traditional area and then educated on the job. Having the senior person available when the new professor begins his/her job would facilitate this transition.

Expansion of Distance Education program (Competitive)

This proposal addresses each of the priorities identified by the Minister. First, it seeks to expand distance education offerings in areas of critical need: a) with respect to expansion of teaching education programs in French, correspondence versions of 5 courses will be developed such that students would be able to obtain a general bachelor's degree; and b) additional correspondence courses will be developed in computer science and environmental hydrogeology which address the need for teaching programs to support Ontario's scientific and technical development, and to promote programs in environmental sustainable development respectively. In both cases, students will now be able to achieve a bachelor's degree.

The correspondence mode of delivery ensures that these critical need programs are available to people across Ontario. Students who cannot attend a university due to distance, handicap, time or job restrictions will have the opportunity to obtain degrees in these priority areas.

The University of Waterloo's correspondence program is known for its innovative yet effective mode of delivery. This proposal seeks to continue experimentation with recent technological advances to enhance the correspondence program. For example, instead of using surface mail, students can now deliver assignments and receive marked assignments electronically via computer mail in several courses. This new capability speeds instructor-student interaction tremendously. Further, students can communicate electronically with their classmates, providing classroom interaction not possible before. These new course offerings will build and expand upon this experience, exploring other new technologies which will augment the quality of Waterloo's courses.

Western

Interdisciplinary Science Program

As part of Western's "Science Teaching-2000" initiative, this project will develop an interdisciplinary program within the Faculty of Science, intended to provide a broad scientific base, with one particular area of specialization, for future Science teachers. It is intended to address the need for solid and coherent science teaching in Ontario's secondary schools. It is expected that a congruent and cohesive approach to scientific study will stimulate an enthusiasm within students in this interdisciplinary program which they in turn will pass to their own students as they enter the teaching profession.

Environmental Engineering Option

The development of an Environmental Engineering option in the undergraduate Engineering Science programs is a priority within the Faculty of Engineering Science. This option would build upon an area of great strength and academic distinction. As an undergraduate option spanning the Departments of Chemical and Civil Engineering, an Environmental Engineering addresses specific Ministerial and Council priorities.

The Environmental Engineering option adds a vigorous new dimension to Western's undergraduate engineering programs. Addressing a societal need for trained professionals with knowledge and sensitivity concerning industrial accommodation with the ecological environment, it is expected that this program option will also attract student, particularly females, with strong commitment to responsible and environmentally sound development into the field of engineering.

Wilfrid Laurier

Enhancement of Distance Education

Currently, Laurier offers two audio conferences per term for each televideo course taught, plus one or two courses taught strictly through the conferencing equipment. This two-way audio system works well for conversation between the centres, but breaks down when it comes to explaining charts and graphs, and presenting visual examples as might be done on a blackboard. The proposed system of a two-way interactive visual system will allow the following advantages:

1. it will allow the University to offer courses in a number of disciplines where the need for the visual medium is imperative to the effective delivery of the course;

2. it will enhance the present conferencing system for courses that are offered at the present time;

3. it will allow greater access to students in remote areas, handicapped students - and those students with home computers;

4. it will offer faculty in all programs to utilize current in the delivery of their programs;

5. it opens the opportunity to work at a distance with other universities in offering senior level courses

The proposed system is currently being successfully used by a number of universities, including the University of Ottawa and the University of Wisconsin.

Windsor

BScN Program for Registered Nurses

The overall goal of this proposal is to increase the number of baccalaureate prepared nurses in Ontario to meet current health care needs. There is presently a demand from recent graduates of diploma nursing programs and practising registered nurses to be able to access programs for B.Sc.N. education which are flexible and can be completed on a full-time or part-time basis within a reasonable time frame. The proposed program will be designed to address these needs. During the development phase, the curricula of the three colleges in southwestern Ontario will be examined in order to ensure that the university content builds upon the existing knowledge base of nurses. Credits will be given where possible for courses already taken, and challenge examinations will be developed for courses which are similar to university required courses. The initial phase will involve curriculum development. The first group of students will be enroled full-time. Following this first cycle, students can choose to enter on a full-time basis or part-time basis. It is anticipated that it will be possible for full-time students to complete this B.Sc.N. program in approximately 18 months.

York

New Undergraduate Degree Program in Environmental Studies

The new undergraduate degree program in Environmental Studies has been approved by the Senate of York University and been submitted to Council for funding approval. This program differs from existing programs elsewhere in that it is not based exclusively or even primarily in the sciences. While it is true that major environmental issues pose a set of problems which are in some sense at least the product of technology, it is the intention of the program to seek the solutions to these problems in a synthesis which engages fully the potential of the social sciences as well as the natural sciences. The primary need for development funding is to provide faculty to develop and implement the new curriculum, the infrastructure needed to administer the program, and computing resources attendant upon the academic requirements. The priorities of Government and Council are served in mounting a program to study environmentally sustainable development. The university's academic plans, which call for diversity and interdisciplinary programming to serve the needs of students in York's catchment area, are also answered.

Critical Skills Degree Credit Courses I

The Faculty of Arts intends to expand its critical skills program by applying the teaching principles developed in the tutorial activities of its long-standing writing centre to degree credit interdisciplinary courses offered by the undergraduate colleges. Funding is needed to appoint five full-time faculty members to co-ordinate and lead this project as well as to teach, and also for the computing resources which will be utilized to develop and co-ordinate the program. In accordance with institutional priorities, York is committed to providing the opportunity for all students to develop analytical and communication skills, and is determined most especially to make access to university a meaningful possibility to members of its diverse multicultural community by providing a basic level of skills development for students from a wide variety of socio-economic and ethnic backgrounds.

Government and Council priorities are served by this significant shift in program emphasis in terms of ensuring a more literate and capable educated populace and in offering opportunities for those under-represented groups for whom critical skills may be a barrier to successful post-secondary education.

Ontario Institute for Studies in Education

Mathematics/Science/Technology Graduate Studies Program

OISE proposes to provide a new specialization on mathematics/science/technology within the graduate studies programs offered by the departments of Curriculum and Measurement, Evaluation and Computer Applications. The specialization will have a strong research and doctoral focus, and will blend applications of instructional technology in both the content and delivery of courses.

The Institute has recently appointed a senior faculty member in the Science Education field. The Institute is immediately initiating a search for a senior faculty member in technology/mathematics Education. Funds are sought to establish a state of the art instructional classroom for this new specialization.

Ryerson Polytechnical Institute

Expansion in Chemical Engineering, Applied Chemistry and Biology

Based upon the successes of pilot projects of cooperative education, the Department of Applied Chemical and Biological Sciences wishes to extend the cooperative mode to students in years 2,3 and 4 and to provide for the work terms in a more integrated way. There is evidence to suggest that the extended approach will improve both retention and enrolment demand in these program areas. The Program Adjustment funds will be used to increase and broaden the range of work placements needed, develop the database of employers and types of placement sites available, and help build the necessary infrastructure during the initial years of phase-in of the extended cooperative model.

Expansion of Environmental Health Program

Program Adjustment funds have been requested to support an expansion of enrolments of approximately 50 FFTEs, and to improve the occupational health and safety component of the curriculum, particularly laboratory instruction in the occupational health and safety courses. Enhancement of the occupational health and safety component of the program has been strongly recommended by the program's advisory committee. Surveys of employers also confirm this direction, and discussions with provincial Ministries of Labour across Canada and with labour unions have emphasized the growing importance of this curricular development.

Program Adjustment funds will be used to: provide office furniture and equipment for new faculty to be hired to support the enrolment expansion; purchase equipment to provide laboratory instruction on the monitoring of occupational health hazards; upgrade existing courses and support new curriculum development in occupational health and safety; and build up the library holdings in occupational health and safety subject matter.

Ontario College of Art

Integrated Computer Workshop Facility

Program Adjustment funds have been requested to develop an Integrated Computer Workshop Facility through Technological Studies for the Art Division and the Foundation Studies programs.

This facility will enhance the curriculum through the introduction of more sophisticated computer technologies and support increased access for general computer use. The development of the facility will enable the integration of computer technologies with other technologies and media such as film, video, audio and animation.

90-XII Graduate Program Funding 1991-92

1.0 Introduction

In this Memorandum the Ontario Council on University Affairs continues the practice of submitting annual advice on the funding of new and existing graduate programs as initiated in Advisory Memorandum 83-VIII.

The graduate program funding approval process was developed to achieve Council's objectives for the graduate enterprise in Ontario[1] and to achieve Council's system-wide goals of institutional role differentiation and system rationalization. Council bases its annual funding advice for new programs on the four criteria contained in Advisory Memorandum 89-V.[2] Briefly, each program must have passed a rigorous academic appraisal, as certified by the Council of Ontario Universities, without requiring any improvement; the university must demonstrate a societal need and student demand for the program; the program must be consistent with the aims, objectives and existing strengths of the institution offering it and be included in the institution's five-year graduate plan; and, Council must deem the program to be an appropriate development within the Ontario university system.

With respect to existing programs, Council relies upon the Council of Ontario Universities' identification of programs of poor quality through the periodic appraisal process conducted by the Ontario Council on Graduate Studies. Council will recommend that funding eligibility be withdrawn from all programs identified to be of unacceptable quality through this process.

Council continues the practice of recommending a weight for each graduate level-one program. All graduate level-two programs, as outlined in The Ontario Operating Funds Distribution Manual, will be in Category 8 with a weight of 6, or 2 per term.

2.0 New Graduate Programs

Council has reviewed the advice of its Academic Advisory Committee regarding the funding eligibility of the following eighteen graduate programs:

University of Guelph:

Graduate Diploma in International Veterinary Medical Development - See Appendix A

Doctor of Philosophy in Family Relations and Human Development (PhD) - See Appendix B

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[1] See Ontario Council on University Affairs, Sixteenth Annual Report, "Advisory Memorandum 89-V: Graduate Program Planning and Funding in the Third Quinquennium, 1989-90 to 1993-94", p. 157.

[2] Ibid., pp. 161-162.

Doctor of Philosophy in Psychology in Applied Social and Applied Developmental Psychology (PhD) - See Appendix C

Doctor of Philosophy in Psychology in Industrial/Organizational Psychology (PhD) - See Appendix D

University of Ottawa:

Master of Science and Doctor of Philosophy in Pharmacology (MSc and PhD) - See Appendix E

University of Ottawa and Carleton University:

Doctor of Philosophy in Computer Science (PhD) - See Appendix F

University of Waterloo:

Doctor of Philosophy in Accounting (PhD) - See Appendix G

Doctor of Philosophy in English in Literature, Rhetoric and Professional Writing (PhD) - See Appendix H

Doctor of Philosophy in Health Studies (PhD) - See Appendix I

University of Western Ontario:

Master of Arts in Theory and Criticism (MA) - See Appendix J

Master of Public Administration in Local Government (MPA) - See Appendix K

Master of Science and Doctor of Philosophy in Neuroscience (MSc and PhD) - See Appendix L

Doctor of Philosophy in Sociology in Health and Aging (PhD) - See Appendix M

Doctor of Philosophy in Sociology in Social Class and Social Change (PhD) - See Appendix N

York University:

Master of International Business Administration (Intl MBA) - See Appendix O

Master of Arts in Translation (MA) - See Appendix P

Doctor of Philosophy in Economics (PhD) - See Appendix Q

Doctor of Philosophy in Social Anthropology (PhD) - See Appendix R

3.0 Recommendations

The evidence provided in the appended reports of the Academic Advisory Committee satisfies Council that there exists a significant need and demand for sixteen of the proposed programs and that there exists demonstrable academic strength at the institutions in which these sixteen programs have been proposed. Two programs were not recommended for funding eligibility (Doctor of Philosophy in Economics and Doctor of Philosophy in Social Anthropology at York University) as they did not meet all of Council's criteria for funding eligibility.

After consideration of the Academic Advisory Committee's advice and of the system-wide planning implications of the proposed programs, Council is satisfied that the sixteen approved programs are appropriate developments within the Ontario university system.

Accordingly, Council *recommends to the Minister:*

OCUA 90-58
ELIGIBILITY OF ENROLMENT IN THE GRADUATE DIPLOMA PROGRAM IN INTERNATIONAL VETERINARY MEDICAL DEVELOPMENT AT THE UNIVERSITY OF GUELPH FOR FUNDING PURPOSES IN 1991-92

THAT enrolment in the Graduate Diploma program in International Veterinary Medical Development at the University of Guelph be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to be in Category 6 with a weight of 3 or 1 per term, as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-59
ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY PROGRAM IN FAMILY RELATIONS AND HUMAN DEVELOPMENT AT THE UNIVERSITY OF GUELPH FOR FUNDING PURPOSES IN 1991-92

THAT enrolment in the Doctor of Philosophy program in Family Relations and Human Development at the University of Guelph be counted as eligible BIUs for funding purposes beginning in 1991-92.

OCUA 90-60
ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY PROGRAM IN PSYCHOLOGY IN APPLIED SOCIAL AND APPLIED DEVELOPMENTAL PSYCHOLOGY AT THE UNIVERSITY OF GUELPH FOR FUNDING PURPOSES IN 1991-92

THAT enrolment in the Doctor of Philosophy program in Psychology in Applied Social and Applied Developmental Psychology at the University of Guelph be counted as eligible BIUs for funding purposes beginning in 1991-92.

OCUA 90-61
ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY PROGRAM IN PSYCHOLOGY IN INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY AT THE UNIVERSITY OF GUELPH FOR FUNDING PURPOSES IN 1991-92

THAT enrolment in the Doctor of Philosophy program in Industrial/Organizational Psychology at the University of Guelph be counted as eligible BIUs for funding purposes beginning in 1991-92.

OCUA 90-62
ELIGIBILITY OF ENROLMENT IN THE MASTER OF SCIENCE AND DOCTOR OF PHILOSOPHY PROGRAMS IN PHARMACOLOGY AT THE UNIVERSITY OF OTTAWA FOR FUNDING PURPOSES IN 1991-92

THAT enrolment in the Master of Science and Doctor of Philosophy programs in Pharmacology at the University of Ottawa be counted as eligible BIUs for funding purposes beginning in 1991-92 - the Master of Science program to be in Category 7 with a weight of 4 or 1.333 per term, as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-63
ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY PROGRAM IN COMPUTER SCIENCE AT THE UNIVERSITY OF OTTAWA AND CARLETON UNIVERSITY FOR FUNDING PURPOSES IN 1991-92

THAT enrolment in the Doctor of Philosophy program in Computer Science at the University of Ottawa and Carleton University be counted as eligible BIUs for funding purposes beginning in 1991-92.

OCUA 90-64
ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY

PROGRAM IN ACCOUNTING AT THE UNIVERSITY OF WATERLOO FOR FUNDING PURPOSES IN 1991-92

THAT enrolment in the Doctor of Philosophy program in Accounting at the University of Waterloo be counted as eligible BIUs for funding purposes beginning in 1991-92.

OCUA 90-65

ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY PROGRAM IN ENGLISH IN LITERATURE, RHETORIC AND PROFESSIONAL WRITING AT THE UNIVERSITY OF WATERLOO FOR FUNDING PURPOSES IN 1991-92

THAT enrolment in the Doctor of Philosophy program in English in Literature, Rhetoric and Professional Writing at the University of Waterloo be counted as eligible BIUs for funding purposes beginning in 1991-92.

Council notes that this program is distinct from existing funded English programs in that it integrates the study of Rhetoric and Professional Writing with Critical Theory and Literature. To accomplish the integration of these three areas, three courses - Critical and Research Theory, Methods of Research for Professional Writers and Rhetoric are mandatory core courses. In addition, each student must take a minimum of three courses that bridge two of the domains of Rhetoric, Professional Writing, Critical Theory, and Literature.

The Council has recommended that this program be funded on the basis of the integrated nature of the rhetoric and professional writing components of the program with the study of critical theory and literature. The Council has no intention of funding an additional general doctoral program in English at this time.

OCUA 90-66

ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY PROGRAM IN HEALTH STUDIES AT THE UNIVERSITY OF WATERLOO FOR FUNDING PURPOSES IN 1991-92

THAT, enrolment in the Doctor of Philosophy program in Health Studies at the University of Waterloo be counted as eligible BIUs for funding purposes beginning in 1991-92.

OCUA 90-67

ELIGIBILITY OF ENROLMENT IN THE MASTER OF ARTS PROGRAM IN THEORY AND CRITICISM AT THE UNIVERSITY OF WESTERN ONTARIO FOR FUNDING PURPOSES IN 1991-92

THAT, enrolment in the Master of Arts program in Theory and Criticism at the University of Western Ontario be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to be in Category

6 with a weight of 3 or 1 per term, as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-68
ELIGIBILITY OF ENROLMENT IN THE MASTER OF PUBLIC ADMINISTRATION PROGRAM IN LOCAL GOVERNMENT AT THE UNIVERSITY OF WESTERN ONTARIO FOR FUNDING PURPOSES IN 1991-92

THAT, enrolment in the Master of Public Administration program in Local Government at the University of Western Ontario be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to be in Category 5 with a weight of 2 or 1 per term, as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-69
ELIGIBILITY OF ENROLMENT IN THE MASTER OF SCIENCE AND DOCTOR OF PHILOSOPHY PROGRAMS IN NEUROSCIENCE AT THE UNIVERSITY OF WESTERN ONTARIO FOR FUNDING PURPOSES IN 1991-92

THAT, enrolment in the Master of Science and Doctor of Philosophy programs in Neuroscience at the University of Western Ontario be counted as eligible BIUs for funding purposes beginning in 1991-92, - the Master of Science program to be in Category 7 with a weight of 4 or 1.333 per term, as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-70
ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY PROGRAM IN SOCIOLOGY IN HEALTH AND AGING AT THE UNIVERSITY OF WESTERN ONTARIO FOR FUNDING PURPOSES IN 1991-92]

THAT, enrolment in the Doctor of Philosophy program in Sociology in Health and Aging at the University of Western Ontario be counted as eligible BIUs for funding purposes beginning in 1991-92.

OCUA 90-71
ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY PROGRAM IN SOCIOLOGY IN SOCIAL CLASS AND SOCIAL CHANGE AT THE UNIVERSITY OF WESTERN ONTARIO FOR FUNDING PURPOSES IN 1991-92

THAT, enrolment in the Doctor of Philosophy program in Sociology in Social Class and Social Change at the University of Western Ontario be counted as eligible BIUs for funding purposes beginning in 1991-92.

OCUA 90-72
ELIGIBILITY OF ENROLMENT IN THE MASTER OF INTERNATIONAL BUSINESS ADMINISTRATION PROGRAM AT YORK UNIVERSITY FOR FUNDING PURPOSES IN 1991-92

THAT, enrolment in the Master of International Business Administration program at York University be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to be in Category 5 with a weight of 2 or 1 per term, as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-73
ELIGIBILITY OF ENROLMENT IN THE MASTER OF ARTS PROGRAM IN TRANSLATION AT YORK UNIVERSITY FOR FUNDING PURPOSES IN 1991-92

THAT, enrolment in the Master of Arts program in Translation at York University be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to be in Category 6 with a weight of 3 or 1 per term, as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-74
ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY PROGRAM IN ECONOMICS AT YORK UNIVERSITY FOR FUNDING PURPOSES IN 1991-92

THAT, enrolment in the Doctor of Philosophy program in Economics at York University not be counted as eligible BIUs for funding purposes.

OCUA 90-75
ELIGIBILITY OF ENROLMENT IN THE DOCTOR OF PHILOSOPHY PROGRAM IN SOCIAL ANTHROPOLOGY AT YORK UNIVERSITY FOR FUNDING PURPOSES IN 1991-92

THAT, enrolment in the Doctor of Philosophy program in Social Anthropology at York University not be counted as eligible BIUs for funding purposes.

On the basis of information currently available, Council concurs with the conclusion of its Academic Advisory Committee. Council notes, however, that this unfunded program has attracted an increasing proportion of Ontario doctoral students in Social Anthropology. Since this program was previously denied funding eligibility on account of a lack of evidence of societal need and student demand, York University must provide specific, convincing evidence that program graduates are meeting the societal needs identified. Council believes that this will be possible once the program has produced graduates. Council, therefore, encourages York University to resubmit this program for reconsideration at such time as some students have graduated from the program and the University can demonstrate that these graduates are meeting a societal need.

4.0 Existing Graduate Programs

Council has reviewed the Council of Ontario Universities/Ontario Council on Graduate Studies annual Report to the Ontario Council on University Affairs on Appraisal Results: 1989-90. This report indicates that no existing graduate programs were placed in the NOT APPROVED category as a result of the quality appraisal process in 1989-90.

Dr. H. V. Nelles,
Chairman

February 15, 1991

Appendix A

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Graduate Diploma in International Veterinary Medical Development University of Guelph

New Graduate Diploma Program Considered for Funding Eligibility

On September 5, 1990, the University of Guelph requested that Council consider its new Graduate Diploma program in International Veterinary Medical Development within the Ontario Veterinary College for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on May 18, 1990, this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, the program did not require any improvements.

2. Societal Need and Student Demand

The Graduate Diploma in International Veterinary Medical Development is a "stand-alone" program, of one calendar year in duration, which is not offered in conjunction with a master's program in the same discipline. During the third semester, a field project will be carried out at an institution in a developing country with which the Ontario Veterinary College has established relations.

The purpose of the program is to provide advanced training for domestic veterinarians planning careers in some aspect of international veterinary medicine and to strengthen the capabilities of veterinarians from developing countries in disease diagnosis and control in populations of animals[1].

This program will meet a need for Canadian veterinarians who are familiar with the disease conditions of various developing regions, and the associated technological, environmental, cultural and economic problems encountered in disease control and eradication programs. This program will also prepare veterinarians for professional careers with international agencies such as the Food and Agricultural Organization of the United Nations (FAO) and the World Bank, for consulting careers, and for government positions related to the trade of animals and of foods of animal origin.

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[1] University of Guelph, Graduate Diploma in International Veterinary Medical Development, Request to the Ontario Council on University Affairs for Formula Funding, September 1990, p. 5.

This program will also meet a need for training by veterinarians from developing countries in the technological methods used to plan and implement disease control programs, including the collection, maintenance and use of data. These students will also benefit from the transfer of technology for establishing comprehensive disease information systems data banks and the use of disease statistics as a tool in matters of disease control legislation, trade, human health, food safety, and veterinary education.

The need for training in this area is underlined by the following comments provided by Agrosysts Ltd.:

> We have been active, both as a firm and individually, in the international agricultural arena and have found that Canadian educational institutions have not completely fulfilled their responsibility in providing long term educational opportunities for young Canadian professionals interested in an international career as well as for staff from developing countries. This program will undoubtedly also provide an opportunity for developing much needed long term professional links between countries that will spill over into the international trade area.
>
> In most developing countries the livestock sector is a dormant and giant national economic catalyst that is plagued by poor animal husbandry management and most often only a nominal animal health program. This is mainly due to the small number of veterinary professionals in the rural areas, who in most cases are simply overloaded, often have no opportunities for upgrading their technical skills, and have access to very poor laboratory facilities. In most of these countries there simply is no concept of, nor reliable statistics on, the general state or prevalence of certain livestock diseases.
>
> In our view both Canadian and international students who would graduate from this program could play a significant role with international funding agencies, private consulting firms, pharmaceutical companies, or as independent consultants.[2]

All program applicants must hold a degree in veterinary medicine.

The need for graduates to prevent the importation of disease by animals and humans or in unsafe agricultural food products is national in scope. The graduates originating from other countries would contribute, in their home jurisdiction, to the prevention of disease and the treatment of diseases which may be brought into Canada.

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[2] Letter from Mr. Martin van Lierop, P.Ag., Agrosysts ltd/ltee, Montreal, Quebec to Dr. N.O. Nielsen, Dean, Ontario Veterinary College, University of Guelph, July 9, 1990.

The need for graduates of this program will be extensive and long-term in duration. Disease among many animal species, particularly in the Third World, have been only minimally studied to date. Almost no research into aquaculture and fish diseases in developing countries has been conducted. Major projects are being established by developing countries within South and Central America and the Pacific Rim with funding from international sources to examine aquaculture issues such as breeding, water resources, disease control and marine science education.

The increasing trend toward the establishment of wildlife preserves in Third World countries is also known to increase the risk of disease to domestic animals grazing on shared pastures, and create risks to human health when these animals are later used as food.[3] Program graduates would contribute to the long-term need for disease monitoring and control programs in these and many other circumstances.

Endorsement of the societal need for this program was provided from a variety of sources. Deloitte and Touche Management Consultants stated:

> Based on our experience, animal health and production remains as a constraint to development in many Third World countries. We also find that many veterinarians in the Third World lack a development orientation to their work and many do not have experience in relating to the field level problems faced by farmers trying to improve their animal husbandry and livestock methods.
>
> If your proposed curriculum can address some of these issues, it would be very useful. We have also found a lack of Canadian trained veterinarians with practical Third World experience in areas such as epidemiology and in dealing with animal health problems as part of an integrated farming system. There will continue to be a demand for individuals with such skills, both from Canada and from Third World countries.[4]

Feedback from the Canadian Veterinary Medical Association revealed that their overseas involvement in the field is increasing and that this program will meet a need for expertise which they will require:

> ...such training is long overdue and essential if Canada is to have an effective role in the improvement of animal health and welfare in developing countries. The Canadian Agency for International Veterinary Development will become increasingly involved in facilitating the

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3. Ibid., p. 11.

4. Letter from Mr. Rick Andrews, Partner, Agriculture and Rural Development Division, Deloitte and Touche Management Consultants, to Dean N.O. Nielsen, Ontario Veterinary College, University of Guelph, July 18, 1990.

> development of international aid projects. It is quite apparent that there are many Canadian Veterinarians who would like to become involved but lack experience or training in work in developing countries.[5]

Other organizations which provided comments attesting to the societal need for this program included: the Atlantic Veterinary College, University of Prince Edward Island; Western College of Veterinary Medicine, University of Saskatchewan; Canadian University Consortium for Health in Development; Acres International Limited; Agriculture Canada; Ontario Ministry of Agriculture and Food; Asian Development Bank; Canadian International Development Agency; Instituto Interamericano De Cooperacion Para La Agricultura, Costa Rica; International Development Research Centre, Ottawa; United Nations Development Programs, Regional Bureau for Asia and the Pacific; The World Bank/International Finance Corporation; and the World Health Organization, Geneva, Switzerland.[6]

This program would be unique in North America.

Student demand for the program is expected to originate with undergraduate veterinary students, and practicing veterinarians, especially those with international backgrounds. Projected enrolment for 1991 is three students (two Canadian and one international), increasing by 1996 to four Canadian and five international students for an eventual steady-state enrolment of eight to ten students. Letters of interest in the program received from potential students were appended to the submission.

The Academic Advisory Committee is satisfied that there is convincing evidence of societal need and student demand for this program.

3. Consistency with Aims, Objectives and Existing Strengths

This program is completely consistent with the University of Guelph's special responsibility in the areas of agriculture and veterinary medicine as well as the University's commitment to "share responsibility for developing the characteristics of the interdependent world" and "to develop a global perspective" among their students.[7]

This program was included in the University's five-year graduate plan in 1988.

This program benefits from related strengths in the Department of Pathology, the Department of Veterinary Microbiology and Immunology, the Department of Population Medicine, the School of Rural Planning and Development, and the Ontario Veterinary College generally. The program will also be supported by the University's Committee on Environmental Programs, the Guelph Food Council, the Centre for International Programs, the four Guelph-Waterloo Biotechnology Centres and the Ontario Ministry of Agriculture and Food investments in veterinary medicine.

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[5] Letter from Mr. Paul Greenough, Chairman, Canadian Veterinary Medical Association, to Dr. O. Nielsen, Dean, July 14, 1990.

[6] University of Guelph, op.cit., Appendices.

[7] Ibid., pp. 20 - 21.

The necessary library resources are already in place within the Veterinary Science Branch of the McLaughlin Library.

The Academic Advisory Committee is satisfied that the Graduate Diploma in International Veterinary Medical Development is consistent with the aims, objectives and existing strengths of the University of Guelph.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Graduate Diploma in International Veterinary Medical Development at the University of Guelph be recommended by Council for funding eligibility.*

Academic Advisory Committee
November 26, 1990

Appendix B

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in Family Relations and Human Development (PhD) University of Guelph

New Graduate Program Considered for Funding Eligibility

On September 4, 1990, the University of Guelph requested that Council consider the new Doctor of Philosophy program in Family Relations and Human Development for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on June 15, 1990 this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed PhD program in Family Relations and Human Development is focused on the study, generation and application of research on family dynamics and individual development within the context of the family across the life-course. The program is intended to promote a broad and indepth understanding of normal and dysfunctional development and family functioning as well as specialized competence in an area of emphasis. Current areas of emphasis offered include child development and family relations, adult development and family relations, and marriage and family therapy.[1] The program's emphasis on the study of individual development within the context of the family is founded upon a multidisciplinary approach.

The program is intended to meet a need for "family science" scholars and professionals with a perspective that combines theory, research and the application of knowledge for the enhancement of individual and family development through social policy and intervention.[2] The program will produce professionals for research, teaching, and prevention/intervention careers associated with child and youth services, marriage and family therapy, gerontology and related governmental, or family and childhood agency positions.[3]

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[1] University of Guelph, Doctor of Philosophy (PhD) in Family Relations and Human Development, Request to the Ontario Council on University Affairs for Formula Funding, September 1990, p. 2.

Letters from potential employers of program graduates indicate that employment opportunities would be found in municipalities, school boards, large community and government agencies, hospitals, teaching and research positions within colleges and universities, private practice, Third World development organizations and through government contracts for research and professional development workshops.

In illustrating the need for program graduates, the Director of the School of Family and Nutritional Sciences at the University of British Columbia stated:

> I am confident that the graduates of your Ph.D. program will be much in demand. In hiring new Family Science faculty at the University of British Columbia, we have sought candidates trained in multi-disciplinary family science programs rather than in traditional discipline based departments. Finding appropriately prepared Canadian candidates has been very difficult.[4]

This sentiment is echoed by the Dean of the Faculty of Human Ecology at the University of Manitoba who indicated:

> As Dean of a major Faculty hiring graduates from such programs, I know the difficulty of recruitment of Canadian academics; there are no applied programs of this type in Canada. I was obligated to study in the United States in my field, as were most of my colleagues. When Canadians do study in the U.S., many become permanent residents and are a loss of valuable human capital to Canada. We have very few Canadians applying for our vacant positions in Family Studies...We would be very interested in hiring graduates from the Guelph doctoral program for positions at the University of Manitoba. With the anticipated retirement of the present aging cohort of professors in the field in about the year 2000, there will be a predicted shortfall and increased demand

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[2] Ibid.

[3] Ibid., p. 7.

[4] Letter from Dr. Daniel Perlman, Director, School of Family and Nutritional Sciences, University of British Columbia, to Dr. Gerald Adams, Department of Family Studies, University of Guelph, August 23, 1990, pp. 1 - 2.

The need for graduates as new faculty was also raised by the Institute of Child Study, Faculty of Education, University of Toronto; the Department of Home Economics, Brescia College; and The University of Minnesota, Department of Family and Social Sciences.

> for academic staff throughout North America. Canada needs to train its own academics to meet these needs.[5]

Organizations such as the Vanier Institute of the Family suggest that the need for graduates in the public and private sectors will also be extensive and long-term:

> ...The changing circumstances and needs of families have...reached the political agenda of almost all the advanced industrialized nations. Family issues have emerged as central preoccupations of not only politicians but also of educators, employers, policy-makers and program designers, advocates, financial planners, market analysts, and human service professionals. My own experience of the last fifteen years working within a voluntary non-governmental organization devoted to understanding and promoting the well-being of families tells me that the demands for and upon family scholars and family practitioners can only increase in the years to come.[6]

Numerous letters commented upon the unique nature of the program, indicating that previous to this program, students had to pursue doctoral study in this area outside Canada.[7] A student, writing in support of expanding offerings in the area of family therapy at the University of British Columbia wrote:

> Unfortunately, there continues to be no doctoral program in Canada offering advanced training in the discipline of MFT [Marriage and Family Therapy]. In the U.S. there are several major universities that have strong academic programs that focus on the study and treatment of the family...Since 1986 there have been three Canadians graduate with PhD degrees in MFT from Perdue. I will be the fourth. Only one has returned to Canada. I will be taking a faculty position at [a U.S.] graduate program in Counselling and Family Therapy beginning September 1...As a Canadian who has had to go out of country to secure advanced, specialized training in this discipline, let me add my voice to the need for

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5. Letter from Dr. Ruth E. Berry, Dean, Faculty of Human Ecology, University of Manitoba, to Dr. Richard M. Barham, Dean, College of Family & Consumer Studies, University of Guelph, August 30, 1990, p.1.

6. Letter from Dr. Robert Glossop, Director of Programs and Research, The Vanier Institute of the Family, to Dr. Gerald Adams, Chair, Department of Family Studies, University of Guelph, August 1, 1990, p. 2.

7. Mount Saint Vincent University, Department of Child Study; University of Alberta; University of Waterloo, Department of Psychology; University of Toronto, Department of Psychology; Perdue University, Department of Child Development and Family Studies; The University of British Columbia, School of Family and Nutritional Sciences; University of Manitoba, Department of Family Studies; Health and Welfare Canada, Social Service Programs Branch; Ontario Association of Family Service Agencies; Interfaith Pastoral Counselling Centre; University of Toronto, Centre for Studies of Aging; University of Western Ontario; Wilfrid Laurier University.

a quality, research oriented program of study in marriage and family therapy.[8]

The University of Guelph projects a total steady-state enrolment of 20 to 21 doctoral students to be achieved in 1996-97. The first admissions to the program will be accepted in 1991-92. The University indicates that four students will be enrolled at that time.[9]

The University is confident that the projected enrolment levels are achievable, having already received 18 enquiries about the program since January 1990. Interested persons have had backgrounds in social work, psychology, nursing, health education, marriage and family therapy, divinity, and related applied social sciences.[10] Applicants are expected to originate from across Canada.

The Committee is convinced of the societal need and student demand for this program.

3. Consistency with Aims, Objectives and Existing Strengths

This program has been included in the University's five-year graduate plan since 1988. Consistent with the aims and objectives of the University of Guelph, as set out in the report entitled Towards 2000: Challenges and Responses, this program will prepare graduates who can accommodate rapid societal changes as they affect the family unit and individuals within it.

The University of Guelph has a variety of corollary strengths at the graduate level within the Department of Family Studies, including the only accredited Marriage and Family Therapy program in Canada, as well as graduate programs in Applied Human Nutrition, and Psychology.

The University also supports a Gerontology Research Centre, the Marriage and Family Therapy Centre, the Family Interaction Observation Facility, and an annual conference on human sexuality.

The University has indicated that the library resources and faculty necessary to offer the program are already in place.

The Academic Advisory Committee is satisfied that the Doctor of Philosophy program in Family Relations and Human Development is consistent with the aims, objectives and existing strengths of the University of Guelph.

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[8] Quote contained within the letter from Dr. Daniel Perlman, Director, School of Family and Nutritional Sciences, University of British Columbia, to Dr. Gerald Adams, Department of Family Studies, University of Guelph, August 23, 1990, p. 2.

[9] University of Guelph, Doctor of Philosophy (PhD) in Family Relations and Human Development, Request to the Ontario Council on University Affairs for Formula Funding, September 1990, p. 9.

[10] Ibid., p. 10.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

enrolment in the Doctor of Philosophy program in Family Relations and Human Development at the University of Guelph be recommended by Council for funding eligibility.

Academic Advisory Committee
November 23, 1990

Appendix C

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in Applied Developmental and Applied Social Psychology (PhD) University of Guelph

New Graduate Program Considered for Funding Eligibility

On October 18, 1990, the University of Guelph requested that Council consider the new Doctor of Philosophy program in Applied Developmental and Applied Social Psychology for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on May 18, 1990 this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed PhD program in Applied Developmental and Applied Social Psychology is based upon the "scientist-practitioner" model of learning, in which traditional scientific training is complimented by knowledge, and assessment and intervention skills needed for the practice of psychology in the workplace. Graduates also obtain an appreciation of social policy issues affecting children, families and special-needs groups within the community.[1]

The Applied Developmental stream focuses upon deviations from child development within a normative, developmental context. The Applied Social stream focuses upon the application of social psychology to issues such as health, law and victimization. Core courses integrate aspects of the two streams. Supervised practicum experience is required within both streams. For doctoral student placements, the University of Guelph will draw upon school boards, treatment centres, mental health clinics, hospitals, district health councils, provincial ministries, and geriatric care facilities, which currently provide practicum placements and employment for graduates of the Guelph masters-level program.

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[1] University of Guelph, Doctor of Philosophy (PhD) in Applied Social and Applied Developmental Psychology and Industrial/Organizational Psychology - Request to the Ontario Council on University Affairs for Formula Funding, September 1990, p. 3 - 8.

Potential areas for dissertation research include:

> normative and atypical cognitive, social and personality development, influence of family system variables, social support and health, psychology of law, conflict resolution, communication skills and social interaction.[2]

Program graduates will be qualified to work as researchers, faculty, and practitioners or consultants in a wide range of human service organizations, government agencies, social planning councils, assessment and treatment centres and educational institutions.[3]

The University of Guelph argues that the need for program graduates of the Applied Social Stream flows from the social and economic effects of changes in the structure and pattern of the family; an aging society; the impact of immigration upon the population; the increased participation of women in the workforce; the development of community-based programs of care for the elderly and the chronically mentally ill; and the need to protect children and youth from physical and emotional harm. Guelph argues that there is a need to promote the capacity of professionals to conduct high quality and objective research and analyses in these and other social policy arenas.[4]

The need for graduates of the Applied Developmental stream arises out of the changing focus of psychological work with children. The University specifically identifies school boards, hospitals, treatment centres, and mental health clinics as employers of individuals skilled in assessment and treatment planning for individual children. The Applied Developmental stream will produce graduates who have basic skills for assessment and intervention with children, but who also will be capable of planning and evaluating school, community and social programs for children and their families.[5]

The University argues that the need for highly skilled professionals "to formulate new and adapt existing social policies and programs to promote human welfare" will be long-term in duration.[6]

The University of Guelph provided the Committee with a variety of actual positions recently advertised within Ontario for which program graduates would be qualified.[7] Positions include Psychologist - Children's Intervention Services, Windsor Western Hospital Centre; School Psychologist, Welland County Roman Catholic Separate School Board; Psychologist, Ministry of Correctional Services and many other similar positions.

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[2] Ibid., pp. 8 - 9.

[3] Ibid., p. 4.

[4] Ibid., p. 11.

[5] Ibid., pp. 11 - 12.

[6] Ibid., p. 13.

Potential employers of program graduates strongly supported the need for additional professionals in these two areas. A representative of the Western Memorial Regional Hospital stated:

> As director of the Child and Adolescent Guidance Service, a Regional Mental Health Service in Western Newfoundland, I encounter many clients who could benefit from trained professionals with just such a background as would be obtained from the program. Newfoundland is short of trained Psychologists with an Applied background. Numerous hospitals, school districts, counselling services, etc. are unable to get the Psychologists they need. Our service has had a vacancy for some time now. I would be very interested in hiring a graduate from your new program, as would many other agencies in the east.[8]

The need for graduates within Ontario was also substantiated in numerous letters from organizations such as Health and Welfare Canada, the Ontario Ministry of Community and Social Services, the Ontario Prevention Clearinghouse and the Regional Municipality of Hamilton-Wentworth.[9]

Comments provided by other psychology departments within the Ontario university system indicated that the program was unique and that the social policy focus was particularly important. Institutions noted that there was no program in existence in Ontario nor in Canada which combined training in applied social and developmental psychology within the same program.[10] A marginal degree of overlap was noted with aspects of existing programs offered at the Universities of Waterloo, Western Ontario and Windsor. However, the duplication involved was not deemed to be significant and the institutions concerned did not believe that the introduction of the Guelph program would in any way diminish the viability of the existing programs.

Student demand for the proposed program is expected to originate from masters programs at Guelph and other psychology departments across Canada.

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7. Ibid., Appendix A.

8. Letter from Mr. Dan T. Ashbourne, Director, Child and Adolescent Guidance Service, Western Memorial Regional Hospital, Corner Brook, Newfoundland to Dr. M.L. Matthews, Chair, Department of Psychology, University of Guelph, July 27, 1990.

9. University of Guelph, Doctor of Philosophy (PhD) in Applied Social and Applied Developmental Psychology and Industrial/Organizational Psychology - Request to the Ontario Council on University Affairs for Formula Funding, September 1990, Appendix B.

10. Letters received from Carleton University, University of Ottawa, McMaster University, Queen's University, University of Waterloo, University of Western Ontario, University of Windsor.

Seventy-six of the 93 masters students currently enrolled at Guelph in masters-level programs in applied psychology have indicated that they intend to continue on to complete doctoral work. The University of Guelph also notes that according to Macroindicator Data, 1989-90, enrolment in Ontario PhD programs has increased 37% between 1977-78 and 1988-89 while undergraduate enrolment over the same period increased by 123%.[11] These statistics suggest that Guelph will easily meet its projected enrolment levels of 8 students in year one of the program increasing to a steady-state total enrolment of 35 students in year five of operation.[12] Given the trend toward greater emphasis upon applied psychology, Guelph projects that student demand will be strong for at least the next 15 to 20 years.

The Academic Advisory Committee is satisfied that there is convincing evidence of societal need and student demand for this program.

3. Consistency with Aims, Objectives and Existing Strengths

The proposed program is consistent with the University of Guelph's aims and objectives document Toward 2000: Challenges and Responses in a number of ways. Its applied focus facilitates interaction between the University and the world of work, blending training and education, as expressly noted in the aims document. The aims document also requires that the University emphasize graduate studies in areas of need where the necessary level of excellence can be demonstrated and that programs interact closely with the communities to be served to increase the University's responsiveness to society's needs. The proposed program will clearly meet unmet societal needs and provide opportunities for practising professionals to interact with the University faculty and students via practicum placements, the use of adjunct faculty and graduate research projects.[13]

This program has been included in the University's five-year graduate plan since 1988.

The University has in place an MA program which offers emphasis in general and experimental psychology and in applied psychology and which received a rating of "good quality" in the most recent OCGS appraisal review completed in January of 1989. The proposed program is also supported by corollary strengths in the graduate area within the College of Family and Consumer Studies where research is conducted on adolescence and gerontology.

Additional funds have been provided to the library budget in support of the new program and additional space will be made available to the Psychclogy Department by August 1991. The University eventually plans a new academic building for the Department's use.[14]

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[11] University of Guelph, Doctor of Philosophy (PhD) in Applied Social and Applied Developmental Psychology and Industrial/Organizational Psychology - Request to the Ontario Council on University Affairs for Formula Funding, September 1990, p. 24.

[12] Ibid.

[13] Ibid., p. 27.

The Academic Advisory Committee is satisfied that the Doctor of Philosophy program in Applied Developmental and Applied Social Psychology is consistent with the aims, objectives and existing strengths of the University of Guelph.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Doctor of Philosophy program in Applied Developmental and Applied Social Psychology at the University of Guelph be recommended by Council for funding eligibility.*

Academic Advisory Committee
December 12, 1990

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[14] Ibid., p. 28.

Appendix D

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in Industrial/Organizational Psychology (PhD)
University of Guelph

New Graduate Program Considered for Funding Eligibility

On October 18, 1990, the University of Guelph requested that Council consider the new Doctor of Philosophy program in Industrial/Organizational (I/O) Psychology for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on September 21, 1990 this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed PhD program in Industrial/Organizational Psychology is based on the "scientist-practitioner" model of graduate education and is offered jointly with the University of Waterloo. The program conforms to the Guidelines for Education and Training at the Doctoral Level in Industrial/Organizational Psychology developed by the Society for Industrial and Organizational Psychology of the American Psychological Association. A supervised work term or practicum experience, and doctoral thesis are required. Graduates will be eligible for registration as a psychologist in Ontario. Courses are available at both Guelph and Waterloo campuses, and course credits are transferrable.

The program prepares graduates to function as Industrial Psychologists within business, industry, government and the military. Graduates will also meet a growing need for faculty within Psychology departments and Schools of Business.

The University of Guelph indicates that employment prospects for graduates are excellent across Canada and that the need for graduates will be long-term and particularly acute within jurisdictions actively involved in employment litigation, employment equity and human rights issues.[1]

Employment and immigration's publication Job Futures, Occupational Outlooks, 1990 edition, indicates that the employment opportunities for psychologists grew substantially more than the average for all occupations over the 1981 to 1989 period due to an increased demand for services and that during the 1989 to 1995 period, employment is expected to continue at a rate well above average.[2]

As evidence of employment opportunities available to graduates, the University submitted a variety of newspaper advertisements for which program graduates would be qualified by virtue of their education and pursuant work experience. Most positions within the private sector sought human resource managers or administrators, however, there was one example of an opening within a school of industrial relations and another for a vocational psychologist.[3]

Letters in support of the societal need for program graduates were unanimous in their strong endorsement of the program. The Associate Director - Executive Compensation, Bell Canada stated:

> ...training in I/O psychology at the Ph.D. Level in English is very scarce in Canada and, with the exception of the University of Waterloo, students who wish to obtain a Doctorate in this field usually enrol in a psychology program in another area and try to do research with a faculty member who has an interest in the organizational applications of psychology. The alternative is to go to an American University...After comparing the description of the program to what I know is available in Canada, I can assure you that it will be the only one of its kind...this program will become the premier centre for the training of I/O psychologists in Canada and will set the standard for future programs.
>
> As a practitioner and a manager in a large corporation, I can assure you that Canadian industry is in great need of human resources professionals trained in I/O psychology. Although other institutions, including business schools, provide programs in human resources management, the in-depth training provided by the type of program offered by Guelph-Waterloo is invaluable to corporations when

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[1] University of Guelph, Doctor of Philosophy (PhD) in Applied Social and Applied Developmental Psychology and Industrial/Organizational Psychology - Request to the Ontario Council on University Affairs for Formula Funding, September 1990, pp. 17 - 18.

[2] Employment and Immigration Canada, Job Futures, Occupational Outlooks, An Occupational Outlook to 1995, 1990 Edition, Volume 1, p. 103.

[3] University of Guelph, Doctor of Philosophy (PhD) in Applied Social and Applied Developmental Psychology and Industrial/Organizational Psychology - Request to the Ontario Council on University Affairs for Formula Funding, September 1990, Appendix D.

> conceptual and practical understanding of human resources interventions and novel solutions to problems are required.[4]

Organizations such as the Department of National Defense indicated that the need for a Canadian program in industrial/organizational psychology was "imperative" for the following reasons:

> There is...a continuing requirement for selected PSOs [Personnel Selection Officers] to receive doctoral training, with one doctoral candidate selected every two years. Unfortunately, due to the limitations of positions, courses and quality of programs, the majority of I/O doctoral training has been received from American universities. Given the legislative, social and cultural differences between the United States and Canada, it is imperative that CF doctoral candidates receive their training at a Canadian university.[5]

The Public Service Commission of Canada indicated that the shortage of qualified I/O personnel was government wide:

> The Personnel Psychology Centre employs more than 20 I.O. psychologists. As such, we...look forward to interviewing graduates from your program. I can say categorically that we do not have enough I.O. graduates to fill Public Service federal and provincial jobs, let alone the private sector, consulting firms, and university positions.[6]

Other organizations which substantiated the societal need for program graduates include the Human Resource Systems Group Ltd., EDC Marketing, M.G. Productivity Partners, Sidney A. Fine Associates, and Westcott Thomas Executive Search and Assessment.[7]

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[4] Letter from Mr. Marc C.A. Berwald, Ph.D., C.Psych., Associate Director - Executive Compensation and Past Chair, Industrial/Organizational Psychology Section of the Canadian Psychological Association, to Dr. Michael L. Matthews, Chair of the Department of Psychology, University of Guelph, July 24, 1990, pp. 1 - 2.

[5] Letter from Mr. F.P. Wilson, Commander, Commanding Officer, Canadian Forces Personnel Applied Research Unit, Department of National Defense, to Dr. M.L. Matthews, Chair, Department of Psychology, University of Guelph, August 15, 1990, p. 2.

[6] Letter from Mr. Ken Grant, Director Personnel Psychology Centre, Program Development (Staffing), to Dr. Michael L. Matthews, Chair, Department of Psychology, University of Guelph, July 13, 1990.

[7] University of Guelph, Doctor of Philosophy (PhD) in Applied Social and Applied Developmental Psychology and Industrial/Organizational Psychology - Request to the Ontario Council on University Affairs for Formula Funding, September 1990, Appendix E.

Comments from departments of psychology across Ontario further attested to the need for the proposed program and its uniqueness.[8] Comments from Queen's University were particularly helpful in placing the proposed program in a system-wide context:

> This program augments and reinforces the existing small program in I/O psychology existing now at the University of Waterloo. The addition of the faculty from Guelph, and their resources, would make this program the strongest I/O program in Canada. There is a strong need for such a program because at the moment, there are only a few, what I would call kernel programs in I/O psychology, in this country. There is nothing equivalent to the major programs that exist in the United States. Such kernels now exist at the University of Western Ontario, at Waterloo, and at Queen's. The need for an expansion of I/O psychology can be documented by referring to the need for trained faculty in this area in future years and by the eagerness of non-academic settings in hiring Ph.D. level industrial/organizational psychologists.[9]

The proposed program will be the only PhD program in Canada in Industrial/Organizational Psychology consistent with the American Psychological Society's Division 14 guidelines.

Student demand would come from master's programs at Guelph and across Canada as well as from individuals with experience in industry and government returning to school to obtain educational credentials not previously available in Canada. Twenty-nine of the thirty-five master's students at Guelph currently specializing in industrial/organizational psychology have indicated that they would be interested in obtaining PhD qualifications in this field.

The University of Guelph has indicated that two students are currently enrolled in the program under the supervision of Guelph faculty and that over the next five years full-time enrolment is expected to reach a steady-state level of 12 students.[10]

The Academic Advisory Committee is satisfied that there is convincing evidence of societal need and student demand for this program.

3. Consistency with Aims, Objectives and Existing Strengths

The proposed program is consistent with the University of Guelph's aims and objectives document Toward 2000: Challenges and Responses which suggests that new programs should be relevant to the needs of society and draw upon interuniversity co-operation where the faculty talent pool is complementary.

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[8] Ibid., Appendix F.

[9] Letter from Dr. Rudolf Kalin, Professor and Head, Department of Psychology, Queen's University, to Dr. Michael L. Matthews, Chair, Department of Psychology, University of Guelph, July 11, 1990.

[10] University of Guelph, Doctor of Philosophy (PhD) in Applied Social and Applied Developmental Psychology and Industrial/Organizational Psychology - Request to the Ontario Council on University Affairs for Formula Funding, September 1990, p. 23.

This program has been included in the University's five-year graduate plan since 1988.

The University has in place an MA program which offers emphasis in general and experimental psychology and in applied psychology, which includes an emphasis in industrial/organizational psychology. The masters program received a rating of "good quality" during the most recent OCGS quality appraisal review, completed in January 1989. The program also draws upon the existing strengths in this area at the University of Waterloo.

Additional funds have been provided to the library budget in support of this program and additional space will be made available to the Psychology Department by August 1991. The University eventually plans a new academic building for the Department's use.[11]

The Academic Advisory Committee is satisfied that the Doctor of Philosophy program in Industrial/Organizational Psychology is consistent with the aims, objectives and existing strengths of the University of Guelph.

4. Funding Recommendation

The Academic Advisory Committee, therefore recommends to the Ontario Council on University Affairs that:

> *enrolment in the Doctor of Philosophy program in Industrial/Organizational Psychology at the University of Guelph be recommended by Council for funding eligibility.*

Academic Advisory Committee
December 12, 1990

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[11] Ibid., p. 28.

Appendix E

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Master of Science and Doctor of Philosophy in Pharmacology (MSc and PhD) University of Ottawa

New Graduate Program Considered for Funding Eligibility

On August 30, 1990, the University of Ottawa requested that Council consider the new Master of Science and Doctor of Philosophy programs in Pharmacology for funding eligibility. Council, according to established procedures, referred the programs to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on January 19, 1990 these programs passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed MSc and PhD programs in Pharmacology will produce graduates in a bilingual milieu who are capable of the independent design and execution of experimental work and the analysis, presentation and interpretation of data in the general field of pharmacology as well as a specific area of research.[1]

The University of Ottawa argues that the passage of the Generic Drug Act, Bill C-22, has intensified the research, development and testing activities within the Canadian pharmaceutical industry and that a large number of pharmacology graduates are required to meet the ensuing personnel needs.

This point was substantiated by comments from the President of the Pharmacological Society of Canada, who indicated that:

> With the passage of the Generic Drug Act, Bill C-22, we have already seen a huge increase in the number of graduate trainees required for our expanding pharmaceutical industry...Not just the pharmaceutical industry, of course, but also other positions associated with

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[1] University of Ottawa, Submission to the Ontario Council on University Affairs for Funding of the M.Sc. - Ph.D. Program in Pharmacology at the University of Ottawa, August 1990, p. 1.

> environmental/toxicology research are ideally suitable to individuals with a good pharmacology background...The Ottawa area...offers a wide range of professional health organizations which are continuously seeking suitably trained individuals. I note,...the various Federal Government departments, hospitals and private sector industries close to Ottawa.[2]

Letters from industry representatives, such as Ciba-Geigy, indicate that projected increases in biomedical research spending in Canada will also increase the need for program graduates:

> As a result of Bill C-22 it has been estimated that biomedical research spending in Canada will triple by 1996 when the industry will be spending 10% of sales on R&D. By the late 90s a considerable portion of this spending will be in basic research, perhaps 25-30%. For this chemists, biochemists, and pharmacologists will be required. Our country will have to decide whether it will produce its own scientists who are on the "cutting edge" or whether we import them.[3]

The University of Ottawa notes that a rapid expansion in basic research facilities is underway at the University of Ottawa, with the creation of the Neuromuscular Research Institute, Cancer Research Laboratories, the Eye Institute and a proposed Industrial Research Park adjacent to the Alta Vista campus. In addition, it was noted that pharmacological research is conducted at several major hospitals (the Ottawa General Hospital, the Ottawa Civic Hospital, the Royal Ottawa Health Care Group, and the Children's Hospital of Eastern Ontario), and research institutes (the University of Ottawa Heart Institute at the Civic Hospital) in the Ottawa area. Health and Welfare Canada, Agriculture Canada, and the Canadian Red Cross also employ pharmacologists. The University of Ottawa argues that the needs of these organizations for pharmacology graduates will not be met by existing programs even in the long term.[4]

Regionally, major drug companies such as Merck Frosst of Montreal, plan to hire 20 scientists per year for the next five years. Merck Frosst indicates that there is currently a shortage of qualified pharmacology graduates with a PhD available to fill these needs:

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[2] Letter from Mr. C.R. Triggle, PhD, President, The Pharmacological Society of Canada, to Dr. N. Bégin-Heick, University of Ottawa, June 21, 1990.

[3] Letter from Mr. Evert C. Vos, MD, PhD, Vice-President, Medical Affairs and Research & Development, Ciba-Geigy Canada Ltd., to Dr. N. Bégin-Heick, University of Ottawa, July 13, 1990.

[4] University of Ottawa, Submission to the Ontario Council on University Affairs for Funding of the M.Sc. - Ph.D. Program in Pharmacology at the University of Ottawa, August 1990, p. 3.

> We are currently constructing a new sixty-million dollar research facility attached to our existing laboratories in Kirkland, Québec. Our five year plan calls for hiring 20 new scientists every year for the next five years. These scientists will be entirely devoted to basic research and new drug discovery and thus a considerable number of them will need to be Pharmacologists. In our experience, there are very few graduate Pharmacologists in Canada and we would welcome the initiation of a new graduate program in Pharmacology at the University of Ottawa. Scientists coming out of such a program would be particularly suited to our research facility coming from a close geographical area and having been exposed to a bilingual environment at the University.[5]

Macroindicator data indicates that the output of graduates from the three existing pharmacology programs at Queen's University, the University of Toronto and the University of Western Ontario has ranged between 5 and 11 graduates since 1983-84. The University of Ottawa argues that this number is insufficient to assure the replacement of the 95 professors currently employed within the system, particularly in light of increased competition for graduates from industry and government.[6]

The final aspect of societal need to be met by this program originates from medical students and members of the Royal College of Physicians and Surgeons of Canada. The Executive Director and Registrar of the Royal College of Physicians and Surgeons of Canada indicated:

> Pharmacology is a discipline basic to the core training for advanced qualifications in many of the 50 specialities currently recognized and accredited by the Royal College. The Faculty of Medicine at the University of Ottawa is currently accredited for 38 specialty training programs. As such, a graduate program in pharmacology would play an important role in meeting the research objectives of these programs...Pharmacology as a basic science discipline is...important in terms of addressing societal needs (drugs, alcohol abuse, medication) in health care. It is at the core of our specialty training programs.[7]

Additional evidence of a societal need for program graduates was provided by Health and Welfare Canada - Bureau of Human Prescription Drugs, Human Safety

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[5] Letter from Mr. A.W. Ford-Hutchinson, PhD, Principal Director, Department of Pharmacology, Centre de Recherche Thérapeutique, Merck Frosst, to Dr. N. Bégin-Heick, University of Ottawa, June 22, 1990.

[6] University of Ottawa, Submission to the Ontario Council on University Affairs for Funding of the M.Sc. - Ph.D. Program in Pharmacology at the University of Ottawa, August 1990, p. 4.

[7] Letter from Dr. Gilles D. Hurteau, Executive Director and Registrar, The Royal College of Physicians and Surgeons of Canada, to Dr. N. Bégin-Heick, University of Ottawa, June 28, 1990.

Division and Bureau of Veterinary Drugs.[8]

The Academic Advisory Committee notes that this program is not, strictly speaking, unique. Graduate-level programs are also offered by Queen's University, the University of Toronto and the University of Western Ontario. However, in light of the long-term societal need for graduates, regional employment opportunities and bilingual character of the program, the Committee is satisfied that any duplication of existing programs is justifiable.

The University of Ottawa expects that student demand for the program will originate primarily from students with undergraduate training in biochemistry, physiology and biology. The creation of Clinical Scientist Programs by the Medical Research Council and the Heart Foundation is expected to increase the demand from MD graduates.

The University has already received over 30 applications for admission, half of which originated in the Ottawa-Quebec region, the rest being from other parts of Ontario, Canada and abroad. The University has considered ten applications from excellent candidates (2 PhD and 8 MSc), and offered places to six individuals. Two of the students admitted are francophones and two are bilingual. The University projects an eventual steady-state enrolment of twenty students.[9]

The Academic Advisory Committee is satisfied that there is convincing evidence of societal need and student demand for the proposed program.

3. Consistency with Aims, Objectives and Existing Strengths

The University of Ottawa offered MSc and PhD programs in Pharmacology until 1985, at which time the programs were terminated due to lack of quality. In the intervening period, significant resources were allocated to strengthen the program including six new staff positions, $150,000 for research equipment, $12,000 for graduate student support in the base budget and for at least the first two years of operation $10,500 per year in special assistantships.[10]

These programs have been included in the University's five-year graduate plan since 1989 and were included in the University's round three corridor planning.

The University of Ottawa has widespread corollary program strengths at the graduate level in life science fields such as anatomy, biochemistry, biology, epidemiology, microbiology and immunology, and physiology. The University also offers 38 accredited medical specialty training programs.

The University has well established links with research units in Federal government departments and affiliated hospitals in the Ottawa region. The Department of Pharmacology has also been the recipient of significant levels of research support from independent granting agencies in 1989-90 such as the

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[8] University of Ottawa, Submission to the Ontario Council on University Affairs for Funding of the M.Sc. - Ph.D. Program in Pharmacology at the University of Ottawa, August 1990, Annex 3: Letters of Support.

[9] Ibid., pp. 5 - 6.

[10] Ibid., pp. 6 - 7.

Medical Research Council of Canada and the Ontario Heart and Stroke Foundation.[11]

In addition, the program is consistent with the University's mission to serve the needs of francophones in Ontario.

The Academic Advisory Committee is satisfied that the Master of Science and Doctor of Philosophy programs in Pharmacology are consistent with the aims, objectives and existing strengths of the University of Ottawa.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Master of Science and Doctor of Philosophy programs in Pharmacology at the University of Ottawa be recommended by Council for funding eligibility.*

Academic Advisory Committee
October 26, 1990

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[11] Ibid., p. 8.

Appendix F

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in Computer Science (PhD) University of Ottawa and Carleton University (Joint Program)

New Graduate Program Considered for Funding Eligibility

On September 11, 1990, the University of Ottawa and Carleton University requested that Council consider their new joint Doctor of Philosophy program in Computer Science for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on January 19, 1990 this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.[1]

2. Societal Need and Student Demand

The proposed PhD program in Computer Science is a joint program administered through the Ottawa-Carleton Institute for Computer Science (OCICS). The program requires that students select a minimum of one-half course from each of the following areas: programming systems and languages; theory of computing; computer applications; and computer systems. A research thesis is also required. Particular program strengths include distributed systems, algorithms and complexity, object-oriented systems and artificial intelligence.

The Universities' submission states that:

> The purpose of the joint...PhD program in Computer Science is to produce highly trained individuals with a comprehensive and contemporary understanding of the discipline who will be able to

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[1] Report of the Appraisals Committee Section II, to the Ontario Council on Graduate Studies, 1990 01 19.

> participate in advanced computer science research in either an academic or industrial setting.[2]

With this program, the Universities involved intend to create a centre of research excellence in computer science. The establishment of the program will also establish a focal point of research collaboration for the information technology sector of the Ottawa-Carleton based high technology industry.[3]

The shortage of highly qualified computer scientists world-wide has been thoroughly documented over the past decade. Academic vacancies in this area of expertise persist across Canada. The Ottawa/Carleton submission notes that in 1989-90 there were 38 vacant academic positions in Canadian Computer Science departments, while only 29 Computer Science PhDs were produced domestically. Only 11 of these took up positions at Canadian universities.[4]

The need for doctoral graduates in computer science nation-wide will not be met in the near future as the growth in production of PhD computer science graduates is slow in Canada and especially slow in Ontario. Data provided by the Universities' submission indicated that although the number of PhDs in Computer Science granted in Canada grew from 26 in 1984 to 37 in 1988, the number produced in Ontario over the same period fell from 16 to 13 PhD degrees granted.[5] Macroindicator Data, 1989-90, compiled by the Ontario Council on Graduate Studies, shows 15 PhD degrees granted by Ontario universities in 1983-84, declining to 14 granted in 1989-90.[6]

Statistics provided in the submission also demonstrated that between 1984-85 and 1988-89 enrolment in Computer Science PhD programs has grown steadily, but slowly, across Canada, increasing from 242 students to 419 students for an average annual growth of 14.8%. However, Ontario's growth over the same time period has been well below the national average, experiencing an average annual growth of only 8.3% (125 students in 1983-84 and 169 in 1988-89).[7] This new program is expected to meet the large demand for advanced computer science skills throughout

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2. University of Ottawa/Carleton University, Submission to the Ontario Council on University Affairs for Funding of the Joint University of Ottawa/Carleton University PhD Program in Computer Science, September 11, 1990, p. 1.

3. Ibid.

4. Ibid., p. 2.

5. Ibid., Endnote #5, Statistics cited from Universities: Enrolments and Degrees 1984-1988.

6. Ontario Council on Graduate Studies, Council of Ontario Universities, Macroindicator Data, 1989-90, Computer Science: Doctoral Students, p. 227.

7. University of Ottawa/Carleton University, Submission to the Ontario Council on University Affairs for funding of the Joint University of Ottawa/Carleton University PhD Program in Computer Science, September 11, 1990, Endnote #6, Statistics cited from Universities: Enrolments and Degrees 1984-1988.

the National Capital Region (Ottawa, Hull and Kanata). The submission notes that in 1989, there were over one hundred and eighty high technology companies in the region involved in research and development, in addition to the many government departments and scientific facilities located there. Approximately 20 masters' level computer science students graduate from the joint Ottawa-Carleton program annually, providing another source of potential students for the proposed program.

The Universities indicated that over 131 enquiries were received about the program during the first half of 1990, of which 3/4 appeared to be from qualified applicants. During the first year of the program, 1990-91, the institutions expected to enrol 4 students, increasing annually to 1996-97 when the steady-state total enrolment would reach 24 students. This steady-state projection assumes that there would be six new admissions and six graduating students per year.[8]

Ottawa and Carleton universities argue that Canadian industry's demand for Computer Science PhDs will continue to grow through the 1990's and that the current dearth of graduates threatens Canadian industrial competitiveness, particularly in light of information technology research and development initiatives underway in Europe such as ESPRIT and Japan's work in fifth generation computing and robotics.

The Universities also note:

> Current trends indicate that demand in the university sector in Canada for doctoral graduates in the sciences and engineering will increase significantly between now and the end of this century. A recent Conference Board of Canada survey indicates that more than half of the 170 Canadian companies surveyed expect shortages of qualified R&D personnel in the next five years, and that the expected shortage has deteriorated. Among R&D professionals, the same survey identifies engineers and computer software specialists as the professional category in shortest supply.[9]

These findings have been substantiated by a number of companies which have indicated that during the 1990s they anticipate an increase in their need for Computer Science graduates, such as Bell-Northern Research Ltd., Computing Devices Company, Cognos Incorporated, National Research Council of Canada, Newbridge Networks Corporation, and many others.[10] In particular, the Telecommunications Research Institute of Ontario stated:

> Current projections across Canada indicate a shortfall of 30,000 Engineers and Computer Scientists by the year 2000. It is desperately

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[8] University of Ottawa/Carleton University, op.cit., p. 5.

[9] Ibid., p. 3.

[10] A variety of letters to Professor Louis G. Birta, Director, Ottawa-Carleton Institute for Computing Science, August and September 1990.

> important to the whole economy and our standard of living that we redress this potentially calamitous situation immediately. If we fail, the high value-added, high technology business will be forced to look outside Canada for their Research (and with the research lost, we will also lose the manufacturing jobs), and will move such research wherever these resources exist.
>
> In the Ottawa-Carleton region, there are now 24,000 jobs in high-technology companies and the need for research personnel especially Ph.D.'s in Computing Science and Computer Engineering is expanding at a rate of about 10% per annum. Without a significant increase in Computing Science Ph.D.'s the growth of this segment will be severely impacted and many opportunities for Canadian entry into very profitable new areas of application of Computing Science will be lost.[11]

The need for program graduates is further substantiated by comments provided from the Canadian Information Processing Society:

> Our knowledge of the marketplace indicates a continuing need for well qualified graduates...We have no reason to believe that the information on the supply and demand for doctoral program graduates in computer science has altered substantially. Briefly that information indicates a demand for graduates from computer science programs and a low unemployment rate for people in this industry. Furthermore, the continuing increase in the number of scholarships for computer scientists is another indication of the demand.[12]

The Academic Advisory Committee notes that although the program will not be entirely distinct from the four existing doctoral programs offered by Queen's, Toronto, Waterloo and Western Ontario universities, it does have certain unique strengths. Most notably, the proposed program has unique research strength in the area of distributed systems. There are 15 faculty involved in this area, whose research efforts span both theoretical and applied topics. Total grant contract support in this area totalled nearly $2,400,000 in 1989-90. Several faculty members play leading roles in the Telecommunications Research Institute of Ontario (TRIO), one of the seven Ontario centres of excellence. Faculty are also involved in the Canadian Institute for Telecommunications Research, one of the national centres of excellence funded by NSERC.[13]

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[11] Letter from Mr. Peter Leach, President, Telecommunications Research Institute of Ontario, to Dr. Louis G. Birta, Ottawa-Carleton Institute for Computing Science, September 6, 1990.

[12] Letter from Ms. Patricia A. Glenn, President, Canadian Information Processing Society, to Dr. Luigi Logrippo, University of Ottawa, August 8, 1988.

[13] Ibid., p. 3.

It is the conclusion of the Committee that there is convincing evidence of societal need for program graduates and sufficient student demand for this program, and that any duplication of existing programs is justifiable.

3. Consistency with Aims, Objectives and Existing Strengths

The University of Ottawa and Carleton University now provide comprehensive joint programs of academic work in Computer Science in the Ottawa region at the masters[14] and doctoral level, consistent with the 1976 recommendations of the Advisory Committee on Academic Planning (ACAP). The proposed program was included in the 1987 five-year graduate plan of both institutions and was included in round three of the universities' corridor planning processes.

The faculty and library resources necessary to offer the program are in place. AAC notes that the joint MSc program in Computer Science received a rating of "good quality" from OCGS during a periodic appraisal in 1986.

The Academic Advisory Committee is satisfied that the proposed PhD program in Computer Science is consistent with the aims, objectives and existing strengths of the University of Ottawa and Carleton University and is also consistent with Council's desire for the rational utilization of scarce resources within the Ontario university system.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Doctor of Philosophy program in Computer Science at the University of Ottawa and Carleton University be recommended by Council for funding eligibility.*

Academic Advisory Committee
October 26, 1990

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[14] A joint masters-level program has been in place since 1982.

Appendix G

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in Accounting (PhD)
University of Waterloo

New Graduate Program Considered for Funding Eligibility

On September 11, 1990, the University of Waterloo requested that Council consider the new Doctor of Philosophy program in Accounting for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on October 23, 1987 this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies (OCGS), however, at the time of appraisal, a report was requested regarding matters pertaining to the quality of the program. On May 8, 1989, the required report was considered by the Appraisals Committee of OCGS and on May 19, 1989 the Ontario Council on Graduate Studies approved the program to continue without further conditions.[1]

The Academic Advisory Committee is satisfied that the program is now consistent with the quality criterion established by Council.

2. Societal Need and Student Demand

The purpose of the proposed PhD program in Accounting is to produce graduates capable of high-quality research and teaching in accounting and finance. Students may write theses in the areas of auditing, information systems, finance, financial accounting, managerial accounting and taxation.

The establishment of this program will contribute to a reduction of the severe shortage of academic accounting and finance professors in Ontario and across Canada. The societal need for academic accountants has been recognized for many years. The Report on Accounting Education in Ontario Universities conducted in 1982 by the Council of Ontario Universities noted that there was:

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[1] University of Waterloo, School of Accountancy, Application for Funding of Ph.D. Program, August, 1990, p. 3 and Appendices 3 to 5.

> ...a growing shortage of professionally qualified accountants...If this need is to be met, a larger commitment must be made to accounting education...the present shortcomings in university accounting education and the professional training for students planning to enter the profession of accounting are the direct result of the current excessive demand on educational resources relative to their availability...the underlying problem is the current grave shortage of academic accountants.[2]

The University of Waterloo submission also notes that a survey conducted for the Canadian Academic Accounting Association revealed that:

> ...demand for and supply of Canadian Ph.D.s in Accounting reported 39 Ph.D. positions unfilled, compared to 55 filled positions, in Ontario universities as at 30 June, 1985. This translated into 41% of the total Accounting Ph.D. positions in Ontario unfilled as of that date. Furthermore, the survey estimated that the shortage would worsen by a factor of at least 20% over the following 5 years.[3]

A study released in 1990 entitled The Continuing Shortage of Doctorally Qualified Academic Accountants generally validated previous projections, noting that in 1990, Canadian universities were in a position to employ 151 new PhD graduates provided that the funding and the candidates were available.[4]

The argument that the need for PhD graduates in accounting is extensive was substantiated by numerous letters from schools of business and or accounting at the universities of Western Ontario, Alberta, British Columbia, Calgary, Laval, and McMaster. Almost every department indicated that they would be very interested in employing program graduates.

The Institute of Chartered Accountants of Ontario also endorsed the proposed program since it will address the severe shortage of accounting PhDs that exists in Ontario and Canada.[5] The Institute noted:

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[2] Ibid., p. 4, quoting pages 3, 4 and 20 of the Report on Accounting Education in Ontario Universities, Committee of Vice Presidents Academic, Council of Ontario Universities, 1982.

[3] Ibid., p. 4, quoting from the Report on Demand and Supply Survey of Canadian Ph.D.s in Accounting 1985, by William R. Scott, published by the Canadian Academic Accounting Association, 21 February, 1986.

[4] Ibid., p. 4, and Appendix 6: The Continuing Shortage of Doctorally Qualified Academic Accountants, by George A. Gekas, Presented at the 1990 Canadian Academic Accounting Association, June 3, 1990, p. 7.

[5] Letter from Mr. Ronald G. Gage, FCA, President, and Mr. David A. Wilson, FCA, Executive Director, The Institute of Chartered Accountants of Ontario, to Professor J.R. Hanna, FCA, School of Accountancy, University of Waterloo, June 29, 1990.

> ...the severe shortage of accounting Ph.D.'s in Ontario led us to establish an ICAO Doctoral Study Support Program through awards that are forgiven on condition that award recipients return to Ontario to teach for one year at an Ontario university for each year of award. With the awards made this year, our support to chartered accountants who undertake Ph.D. studies in accounting now exceeds $1M...During recent years we have found that many of our best students in U.S. doctoral programs have decided to remain in the U.S. and accept positions in spite of the fact that they must pay back our loans if they do not teach at an Ontario university. We believe that it is more likely that students who complete the Waterloo Ph.D. program will graduate and accept positions in Ontario -thus more directly addressing the need for qualified faculty by Ontario universities.[6]

The University of Waterloo indicated in its submission that many Ontario students go to American universities to obtain a doctorate in accounting. Of the fifteen individuals supported by the Doctoral Fellowship Program of the Ontario Institute of Chartered Accountants who have completed their degree to date, ten attended universities outside Ontario, the majority in the United States. Of these ten students, five accepted teaching positions at American universities.[7]

The University of Waterloo states that the proposed program is unique in Ontario and Canada and that there is but minimal overlap with existing programs at other universities. Although Queen's University and the University of Western Ontario both offer PhD programs in which one could specialize in accountancy, these programs are offered within the context of the Doctoral programs in Business, rather than a School of Accountancy.

Given the extent of the societal need for graduates of the proposed program, the Academic Advisory Committee is satisfied that any duplication of existing programs is justifiable.

Students possessing a masters or honours bachelors degree in any area may apply for admission to the program. However, the University of Waterloo expects the majority of student demand to originate with domestic students with undergraduate and professional qualifications in accounting and to a lesser extent from graduates in business, economics, management science and mathematics.

The University of Waterloo enrolled three students in the program in 1988, an additional three in 1989 (of which one was a Visa student) and three more students in 1990, for a current total enrolment of nine students in the program. The University expects to continue to enrol three new students per year until the steady-state total enrolment level of twelve students is achieved in 1992.[8] Application statistics show an ever increasing interest in the program. The University expects that the student demand for this program will be strong and long-term.[9]

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[6] Ibid.

[7] University of Waterloo, School of Accountancy, Application for Funding of Ph.D. Program, August, 1990, p. 5.

[8] Ibid., p. 6.

The Academic Advisory Committee is satisfied that there is convincing evidence of societal need and student demand for the PhD program in Accounting at the University of Waterloo.

3. Consistency with Aims, Objectives and Existing Strengths

The PhD program in Accounting at the University of Waterloo is supported by thriving undergraduate and masters programs. The undergraduate program enrols approximately 1,000 students in a variety of courses. The academic Masters program currently enrols 6 students, while the applied Master's of Accounting program graduates an average of 40 students per year.[10] The School of Accounting has 24 full-time faculty members.

The proposed program is consistent with the University's mission to offer professional programs in areas of strength based on fundamental knowledge which lead to expertise in a profession.

Related endeavours at the University of Waterloo include the Centre for Accounting Research and Education, supported by private funding, which fosters outstanding research and teaching in accounting. The University has also raised approximately 3 million dollars in capital funds in support of the School of Accounting as well as established two chairs and three special professorships in accounting funded by the private sector.

This program has been included in the University's five-year graduate plan since 1986.

The Academic Advisory Committee is satisfied that the Doctor of Philosophy program in Accounting is consistent with the aims, objectives and existing strengths of the University of Waterloo.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Doctor of Philosophy program in Accounting at the University of Waterloo be recommended by Council for funding eligibility.*

Academic Advisory Committee
November 23, 1990

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[9] Ibid., p. 7.

[10] Ibid., p. 8.

Appendix H

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in English in Literature, Rhetoric, and Professional Writing (PhD) University of Waterloo

New Graduate Program Considered for Funding Eligibility

On September 11, 1990, the University of Waterloo requested that Council consider its new PhD program in English in Literature, Rhetoric, and Professional Writing for a recommendation regarding funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on February 16, 1990, this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed program integrates the study of rhetoric and professional writing with the study of literature and critical theory. The purpose of the PhD program in English at the University of Waterloo is to foster depth and flexibility in the following three areas of study: literature, critical theory, and professional writing.[1]

The societal need for graduates with these particular areas of expertise is viewed as most urgent in the academic sector. The demand is expected to be critical during the next two decades. The need for replacement professoriate appears to be particularly acute in the areas of Professional Writing and Rhetoric. As the Université de Sherbrooke documents, they received no qualified applicants for a position advertised in 1990-91 requiring a doctorate in Professional Writing.[2] Similarly, in the area of Rhetoric, several universities in Canada including York, Laurentian, British Columbia, Alberta, Winnipeg, St. Francis Xavier universities, and Mount Royal College sought rhetoricians in 1989-90 with limited success. The University of Alberta's documented attempts to hire a English PhD in Rhetoric illustrate the extent of the problem:

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[1] University of Waterloo, Funding Proposal for PhD in English, University of Waterloo, August 3, 1990, p. 2.

[2] Letter from Professor Avrum Malus, Assistant Director, Département des lettres et communications, Université de Sherbrooke, to Mr. Gordon E. Slethaug, Chairman, Department of English, University of Waterloo, June 14, 1990.

> ...we advertised for a specialist in rhetoric and composition in 1986-87 and again in 1987-88; both years there were very few applicants and those consisted largely of Canadians pursuing graduate work in the United States. We did not make an appointment in either year, but in 1987-88, we did interview one person, a Canadian who was at the time completing a PhD at Louisiana State University. In 1988-89, we had an "open advertisement--inviting applications from candidates in all areas--for six positions, but one which specified that the department was particularly interested in hiring a specialist in rhetoric and composition. After careful screening of the applicants, we again decided not to invite any candidates for an interview. After a similar advertisement this past year (1989/90), we again made the same decision not to interview in this field.[3]

The University of Waterloo also believes that its general integrated approach to the study of English provides a "much-needed" and "timely alternative" to the traditional pattern of literary study that characterizes other graduate English programs in Ontario and in Canada.[4] Currently, there is no PhD program in Professional Writing within Canada. The University of British Columbia does offer a doctoral program in English with an integrated rhetoric component, however, any student who wishes to integrate the study of English literature with either or both professional writing or rhetoric must attend institutions in the United States such as University of California at Berkley, Carnegie-Mellon University, or Ohio State University.

The University of Waterloo also indicates that there is a non-university demand for English PhD's with this particular expertise. Recent trends have shown that governments and corporations are hiring these graduates for their communication departments and research labs. Bell Northern Research/Northern Telecom (BNR/NT) and IBM Canada have both indicated a strong desire to hire Waterloo's rhetoric-professional writing PhD's immediately:

> ...we have an urgent need for the strong research skills that the PhD program will provide. BNR/NT anticipate hiring from this program at least

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[3] Letter from Dr. Bruce Stovel, Associate Chair, Department of English, University of Alberta, to Dr. Gordon Slethaug, Chairman, Department of English, University of Waterloo, June 18, 1990.

[4] University of Waterloo, op.cit., p.4.

two PhD graduates per year immediately, possibly rising to five per year within the next few years.[5]

Furthermore, Waterloo notes that the commitment of these two firms extends as far as requesting PhD interns to work for them and they have asked that the language and professional writing components of the program be brought on-site on a part-time basis.[6]

Currently, seven other doctoral programs in English exist within Ontario's university system. However, the PhD programs in English offered at Carleton, McMaster, Ottawa, Queen's, Toronto, Western, and York universities all focus on the study of literature. The Committee believes that given Waterloo's unique curriculum which integrates the study of rhetoric, professional writing, and the study of literature, duplication of programs within the university system will not be exacerbated by the existence of the proposed program.

A survey done by the English department at the University of Waterloo in 1989 indicates that student demand for this program is strong. Specifically, 80% of the MA and MPhil students that were surveyed and responded in the English department at the University of Waterloo said that they would apply to such a program. Moreover, these results indicated that 22 students from Waterloo's own masters level program would be qualified applicants for the 10 positions available in the first year of the program.

Additional student demand is also expected from the growing undergraduate English program pool within the Ontario university system. According to the Ontario Council on Graduate Studies discipline report in English, the increase in English undergraduate major enrolments over the past decade has been 94% nationally, and 147% provincially.[7]

The Academic Advisory Committee is convinced of the societal need and student demand for this program.

3. Consistency with Aims, Objectives, and Existing Strengths

The University of Waterloo's Department of English currently offers undergraduate and masters options with concentrations in Literature, Critical Theory, Rhetoric, and Professional Writing. Although the proposed program is unique at the doctoral level, course concentrations complement undergraduate and masters level offerings.

The University of Waterloo is well-known for its wedding of the theoretical and practical. The integrated approach of the PhD program in English is consistent with this institutional objective.

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[5] Letter from Mr. Andrew Sutcliffe, Director of Information and Mr. William Hosier, Manager of Information Integrity, BNR to Dr. Gordon Slethaug, Chairman, Department of English, University of Waterloo, July 5, 1990.

[6] Ibid., p. 5.

[7] Ibid., p. 6, citing English: Comments Arising from the Appraisal of Graduate Programmes in Ontario, June 1990.

With 35 faculty members, English is the second largest program in the Faculty of Arts at the University of Waterloo. Furthermore, the University believes that its library and computer resources fully support the goals of the PhD program.

The proposed program has been included in the University of Waterloo's five-year plan since 1988.

The Committee is satisfied that the proposed PhD program in English in Literature, Rhetoric and Professional Writing is consistent with the aims, objectives and existing strengths of the University of Waterloo.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Doctor of Philosophy program in English in Literature, Rhetoric and Professional Writing at the University of Waterloo be recommended by Council for funding eligibility.*

Academic Advisory Committee
December 12, 1990

Appendix I

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in Health Studies (PhD)
University of Waterloo

New Graduate Program Considered for Funding Eligibility

On September 11, 1990, the University of Waterloo requested that Council consider the new Doctor of Philosophy program in Health Studies for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. This program was also referred to the Ministry of Health for comment. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on October 20, 1989, this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed PhD program in Health Studies offers an opportunity for interdisciplinary study focusing upon disease risk factors, behavioral and biological determinants of risk, behaviour change for disease prevention and health promotion, and health program evaluation.

The University of Waterloo argues that there is a strong societal need for the graduate training made available by the proposed PhD program in Health Studies. The University submission notes that the fact that diseases of lifestyle are the predominant causes of morbidity and mortality in contemporary society was first address nationally by Marc Lalonde in A New Perspective on the Health of Canadians in 1974, followed by a 1986 report by Jake Epp entitled Achieving Health for All: A Framework for Health Promotion.[1] The University of Waterloo adds that the need for behaviourally-based approaches to health research, planning and manpower training has also been articulated by recent Ministers of Health of Ontario.[2]

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[1] University of Waterloo, Doctor of Philosophy in Health Studies, September 11, 1990, p. 5.

[2] Ibid.

The need for graduates with the type of advanced preparation to be provided by the proposed program was substantiated by a variety of potential employers. The Health Promotion Branch of the Ontario Ministry of Health notes the variety of initiatives which will increase the societal need for expertise such as program graduates would possess:

> ...I have had concerns about the lack of qualified professionals in health promotion in Ontario. Furthermore, given the emphasis placed on health promotion by the Premier's Council on Health Strategy and the Ministry of Health (e.g. Heart Health, Healthy Lifestyles, public health Mandatory Health Programs and Services Guidelines, comprehensive health organizations, community health centres, health services organization, etc.), it is becoming increasingly important to develop programs and policies from a sound scientific basis. Your new program will undoubtedly make significant contributions to both professional and knowledge development.[3]

This Ministry also indicated its interest in making available student study or practicum placements within the Health Promotion Branch.

At the local level, comments from the Regional Municipality of Waterloo suggested that the need for program graduates is significant and long-term:

> Over the course of the past 12 years, while working in public health in three provinces, I have identified a real need for individuals with the training and skills required to conduct research and evaluate programs in the health field. I believe that graduates of this program would admirably fill the gap.
>
> In April 1989 the Ministry of Health published the Mandatory Health Programs and Services Guidelines. Health units in the province will implement these programs and services over the next three years and will require personnel with appropriate expertise to evaluate the impact of these new initiatives and also to conduct research in the health unit setting. In view of this new direction, the development of the Ph.D. program in Health Studies is quite timely.[4]

Other organizations providing evidence of a societal need for graduates of the proposed program include the Health Services and Promotion Branch of Health and

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[3] Letter from Mr. John M. Garcia, Head, Policy Development and Coordination Unit, Health Promotion Branch, Ministry of Health, to Dr. L. Hoffman-Goetz, University of Waterloo, June 11, 1990.

[4] Letter from Mr. Ronald Sax, BSc, MD, Msc, Commissioner/Medical Officer of Health, The Regional Municipality of Waterloo, to Dr. L Hoffman-Goetz, University of Waterloo, June 21, 1990.

Welfare Canada, The Canadian Public Health Association and the Heart and Stroke Foundation of Ontario.[5]

The University of Waterloo also submitted a variety of job postings for which program graduates would be qualified, including university faculty positions within Canada and the United States; research positions within research institutes and organizations such as the York Region Abuse Program, and the International Development Research Centre; and program coordinator positions for organizations such as the Ontario Cancer Treatment and Research Foundation, Heart and Stroke Foundation of Canada and the Ministry of Health.[6]

The proposed program was circulated by the Ontario Council on University Affairs to the Ministry of Health (Health Human Resources) for review and comment. The Ministry stated:

> We support the development of this program since: it does not duplicate an existing program; there is a growing need for empirical analysis of specific intervention programs; and it is generally acknowledged that major gains in health care will be the result of illness prevention.[7]

The Academic Advisory Committee is satisfied that the proposed program is unique and does not duplicate the PhD program at the University of Toronto in Behavioral Aspects of Health and Illness which has a strong sociological and economic focus.[8]

Student demand for the program is strong. The University of Waterloo has received 56 enquiries about the program to date, 13 applications for September 1990 admission and an additional 18 enquiries regarding admission for September 1991.

The majority of student demand has originated from graduates of MA and MSc programs in Ontario and Canada, with the remainder coming from internal MSc students at the University of Waterloo and from students abroad.[9]

The University of Waterloo admitted one full-time and three part-time students to the program in September of 1990-91. The University expects to increase admission levels by one student per year to a steady-state of six admissions per year to be achieved by 1993-94. The projected steady-state enrolment level of twelve students is expected to be achieved within the first four years of the program's operation.[10]

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[5] University of Waterloo, Doctor of Philosophy in Health Studies, September 11, 1990, Appendix C.

[6] Additional information provided by the University of Waterloo to the Ontario Council on University Affairs, January 4, 1991.

[7] Letter from Pat Baranek, Manager, Health Human Resources Policy, Ministry of Health, November 21, 1990, p. 3.

[8] University of Waterloo, Doctor of Philosophy in Health Studies, September 11, 1990, p. 6.

[9] Ibid., p. 7.

The Academic Advisory Committee is satisfied that there is convincing evidence of societal need and student demand for the proposed program.

3. Consistency with Aims, Objectives and Existing Strengths

The University of Waterloo argues that the proposed program is consistent with the Faculty of Applied Health Science's objective to develop knowledge and programs related to health and well-being. It is consistent with the University's existing strengths in Health Studies at the BSc and MSc level. The Department of Health Studies was one of the first internationally to offer programs focused on an analysis of the biobehavioural bases of morbidity and mortality and on health promotion interventions. The University of Waterloo also supports a Centre for Applied Health Research.

The University of Waterloo has assured the Committee that the library, laboratory, computing and faculty resources necessary to offer the program are in place.

The University has provided evidence of extensive faculty research funded by external agencies including Health and Welfare Canada, NSERC, and the Heart and Stroke Foundation.

The PhD program in Health Studies has been included in the University's five-year graduate plan since 1988.

The Academic Advisory Committee is satisfied that the Doctor of Philosophy program in Health Studies is consistent with the aims, objectives and existing strengths of the University of Waterloo.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Doctor of Philosophy program in Health Studies at the University of Waterloo be recommended by Council for funding eligibility.*

Academic Advisory Committee
November 23, 1990

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[10] Ibid., p. 8.

Appendix J

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Master of Arts in Theory and Criticism (MA) University of Western Ontario

New Graduate Program Considered for Funding Eligibility

On August 22, 1990, the University of Western Ontario requested that Council consider the new Master of Arts program in Theory and Criticism for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on June 15, 1990 this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed MA program in Theory and Criticism is two years in duration and requires a thesis and a demonstration of a reading knowledge in one language other than English. The program emerged out of the Centre for the Study of Theory and Criticism, established in 1986.

The University of Western Ontario states that the program was developed in response to a need, expressed by students, researchers, administrators and members of the broader community, for

> ...a program of cross-disciplinary study which would make it possible for students to re-examine the very foundations of traditional disciplinary enquiry and to explore the ways in which the methods and theories of different disciplines can inform and enrich one another.[1]

The program will focus on fundamental questions about language, society, politics and the arts; concepts such as race, class, and gender; on methodological problems raised by the questioning of traditional disciplinary boundaries and assumptions; and on major contemporary theories and methodologies such as hermeneutics, semiotics, feminism, poststructuralism, psychoanalysis, and marxism.[2]

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[1] University of Western Ontario, Application for Approval of Funding of a MA Program in Theory and Criticism at the University of Western Ontario, August 22, 1990, p. 1.

The program is designed primarily for students intending to continue on to programs of doctoral study. The University of Western Ontario indicates that:

> A remarkable number of academic jobs in various fields and throughout North America now advertise specifically for candidates who have expertise in the cross-disciplinary study of theory and criticism, the kind of expertise that the Theory degree provides and that is unavailable through traditional disciplinary study.[3]

The Academic Advisory Committee reviewed a series of recent job postings advertising for candidates who have a background in theory and criticism. These positions were available within a wide range of disciplines, including Art History, Sociology, Anthropology, Women's Studies, Communications Studies, Politics, English, Comparative Literature and Philosophy at institutions across Canada and the United States.[4]

The University argues that for students wishing to pursue careers outside academia, the program will equip them with wide-ranging analytic skills that can be adapted to many careers in business, government, education, the media and virtually any other career in which theory or policy must be framed, assessed, or implemented.[5] The indepth training of graduates in critical thinking and writing, will far exceed the experience of MA graduates with discipline-based training. The University states that graduates

> will, therefore, be eminently qualified to pursue any career where specialized skills in planning, communicating, and evaluation of the current social, political, international, and business scene are required.[6]

Such careers could include work in the cultural, multi-cultural or commercial sphere.

The University of Western Ontario asserts that the proposed program is unique in its particular focus on theory and criticism in the Humanities and Social Sciences and in its wide-ranging multidisciplinary approach.[7]

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[2] Ibid., pp. 1 - 2.

[3] University of Western Ontario, Response to OCUA request for Additional Information, January 3, 1991, p. 1.

[4] Ibid., Attachments.

[5] University of Western Ontario, Application for Approval of Funding of a MA Program in Theory and Criticism at the University of Western Ontario, August 22, 1990, p. 4.

[6] University of Western Ontario, Response to OCUA request for Additional Information, January 3, 1991, p. 2.

The University indicates that its program is quite distinct from the Methodologies for the Study of Western History and Culture program at Trent University in that

> Trent's program orients itself specifically towards "methods" of "interpreting" Western history and culture, and does not attempt, as the MA program in Theory and Criticism does, to investigate the questions surrounding the use of and claims made by the various theoretical and critical discourses themselves, including those questions that arise when one employs "methodologies" to study "history" and "culture".[8]

Student demand for the program has been strong. Despite limited advertising, the University received 25 enquiries about the MA program in 1989-90. Twelve qualified applicants requested admission to the program. Seven students were admitted to the program in the Fall of 1990. The University plans to admit a maximum of ten students per year and will achieve the projected steady-state total enrolment level of twenty students by 1992-93.

Student demand originated primarily from within Ontario, however, applications were received from other provinces. Student backgrounds included degrees in English, Philosophy, Political Science and the Visual Arts. A significant proportion of enquiries and applications (approximately 25%) came from mature students already in the work force.[9]

The Academic Advisory Committee is satisfied that there is convincing evidence of societal need and student demand for the proposed program.

3. Consistency with Aims, Objectives and Existing Strengths

The University of Western Ontario submission contains extensive evidence of support for the establishment of this program across the University. A letter from the Dean of the Faculty of Arts states:

> From the Faculty perspective, this program not only complements our existing offerings at the graduate level, it also meets a need that in principle cannot be met by any one of them individually. The reason for this is that critical theory examines the social and conceptual formulations of the traditional disciplines in a way that none of them can do for want of an interdisciplinary perspective. The upshot is that this program represents greater direct social significance than any program we currently offer in this humanities faculty. It seems to me that even

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[7] University of Western Ontario, Application for Approval of Funding of a MA Program in Theory and Criticism at the University of Western Ontario, August 22, 1990, p. 3.

[8] Ibid., p. 3.

[9] Ibid., p. 5.

> programs in biomedical ethics, for example, will not have the long-range impact this program would have.[10]

The program was also endorsed by the Dean of the Faculty of Social Science, Vice-president Academic, and the Director of the Women's Studies and Feminist Research Centre.

In 1989, the Centre for the Study of Theory and Criticism was awarded an annual budget of $100,000 under an internal excellence fund program to support its activities and the proposed program. The program has also attracted Dr. Janet Wolff, formerly Reader in Sociology of Culture and Director of the Centre for Cultural Studies at the University of Leeds and future Visiting Professor of Art History at the University of Rochester, as a visiting professor.

Library resources have been deemed more than adequate to support the program and the necessary faculty and student support funds are already in place.

This program has been included in the University's five-year graduate plan since 1989.

The Academic Advisory Committee is satisfied that the Master of Arts program in Theory and Criticism is consistent with the aims, objectives and existing strengths of the University of Western Ontario.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Master of Arts program in Theory and Criticism at the University of Western Ontario be recommended by Council for funding eligibility.*

Academic Advisory Committee
January 25, 1991

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[10] Letter from Dr. Thomas M. Lennon, Dean, Faculty of Arts, The University of Western Ontario, June 26, 1990.

Appendix K

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Master of Public Administration in Local Government (MPA) University of Western Ontario

New Graduate Program Considered for Funding Eligibility

On May 14, 1990, the University of Western Ontario requested that Council consider its new Master of Public Administration (MPA) program in Local Government for a recommendation regarding funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on January 19, 1990, this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The University of Western Ontario has indicated that the MPA program in Local Government is being offered to meet a need for academic preparation from management personnel at senior levels in organizations such as municipal corporations and associated special-purpose bodies such as health units, school boards, conservation authorities, police commissions, children's aid societies, and public utilities commissions.[1] The proposed program is offered by the Political Science Department and can be taken on a full or part-time basis.

The need for this particular program was identified in 1987, by the Ontario Ministry of Municipal Affairs which established the Municipal Education and Training Secretariat to, among other things, explore the possibility of developing new programs in municipal government and to assist educational institutions and municipal organizations in initiating them. The Secretariat granted $340,000 over four years to the University of Western Ontario to develop an MPA program in Local Government because no such program was available in Ontario. Furthermore, the Ministry of Municipal Affairs agreed to fund, on an annual basis, the cost of one full-time Visiting Fellow to be attached to the MPA program.

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[1] University of Western Ontario, Application for Approval of Funding of a Master of Public Administration (MPA) Program in Local Government, April 17, 1990, p. 1.

A survey done by Decima Research in 1988 also indicated that there was a professional need for the proposed program. The study, entitled A Survey Among Senior Non-Elected Municipal Officials and Councillors for the Ministry of Municipal Affairs indicated that "the majority of municipal officials believed that they could benefit from additional training and or education".[2] Specifically, many felt there was a definite need to bring new ideas and innovation into the areas of communication and management.

Another 1988 study, conducted by the Political Science Department at the University of Western Ontario, surveyed 240 municipal managers who had attended Western's six-week Diploma in Public Administration course. The results substantiated the findings of the Decima survey. Specifically, it revealed that:

> 94.7 % of respondents thought it a good idea that Western establish an MPA with a focus on local government; 91.7% indicated that, as managers, they would support the necessary arrangements for their employees to enrol in the MPA program; 71.4% expressed interest in enrolling themselves.[3]

The University argues that the proposed program will serve the needs of a vitally important segment of the public-sector workforce. Also, it is argued that local-government structures and processes differ substantially from those found at other levels of government while the social, environmental, organizational, and financial problems are equally "intricate and complex".[4] Therefore, the proposed program is designed to meet the needs of local-government managers who need to learn about the opportunities and constraints facing the governments they serve, and about the challenges of managing an open and politically sensitive organizational environment.

The demographic age profile of municipal officials also suggests an increasing and long-term societal need for new local government employees with specialized knowledge. In 1988, 20% of non-elected officials were over the age of 55. With a significant amount of attrition occurring in a relatively short period of time, the personnel needs of municipal governments are anticipated to increase dramatically over the next ten years.

The Federation of Canadian Municipalities (FCM) states that there is a "pervasive presence of local government[s]".[5] In fact, they claim that in excess of four thousand local governments exist in Canada today. Furthermore, the functions of local administration have expanded in recent years. Given the fact that training programs at this level for local government managers are "almost unknown" and the University of Western Ontario's "already established" strong track record in local government work, the FCM supports the proposed program.[6] Evidence of support of societal need for the proposed program was also provided by the Ontario Municipal Administrators' Association.

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[2] Ibid., p. 2, citing Decima Research, A Survey Among Senior Non-Elected Municipal Officials and Councillors for the Ministry of Municipal Affairs, 1988.

[3] Ibid.

[4] Ibid., p. 3.

[5] Letter from James W. Knight, Executive Director of the Federation of Canadian Municipalities, December 4, 1990.

Other MPA programs exist at Carleton, York, Brock, Guelph, and Queen's universities. However, the University of Western Ontario argues that there is no duplication of other MPA programs because of its program's special emphasis on local government. The Academic Advisory Committee is satisfied that Western's program has a particular focus which makes it significantly different from the other five MPA programs in Ontario.

The program will be offered on both a full-time and part-time basis. Part-time student demand is expected to be high in the London and the Southwestern Ontario area, with demand originating primarily from local government officials interested in upgrading their educational credentials. The University of Western Ontario indicated that without any advertising, the program generated nineteen completed applications and about two hundred requests for further information.

The Academic Advisory Committee notes that the University of Western Ontario admitted its first students in 1990, enrolling 7 full-time and 12-part-time students to the MPA program. By 1993-94, the University of Western Ontario plans to achieve a steady-state total enrolment of 15 full-time and 45 part-time graduate students.

The Academic Advisory Committee is satisfied that there is convincing evidence of societal need and student demand for this program.

3. Consistency with Aims, Objectives, and Existing Strengths

The University of Western Ontario has corollary strengths in Political Science, Business Administration, and Public Administration. In the 1987-88 appraisal cycle, the MA in Political Science was designated to be of "good quality" by the Ontario Council on Graduate Studies. Moreover, the Political Science Department's strength has been in the teaching and research of local government for over three decades. As such, the University of Western Ontario proposes to establish an MPA program which serves the needs of an important segment of the public-sector workforce, in a field in which it already has significant existing strengths.

The University has also offered a six-week Diploma in Public Administration course since 1974.

The program will be further supported by the University of Western Ontario's Centre for Administration and Information Studies.

The Committee recognizes that the MPA in Local Government program has been part of the University's five-year graduate plan since 1986.

The Committee is satisfied that the proposed MPA program in Local Government is consistent with the aims, objectives and existing strengths of the University of Western Ontario.

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[6] Ibid.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Master of Public Administration program in Local Government at the University of Western Ontario be recommended by Council for funding eligibility.*

Academic Advisory Committee
December 12, 1990

Appendix L

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Master of Science and Doctor of Philosophy in Neuroscience (MSc and PhD) University of Western Ontario

New Graduate Program Considered for Funding Eligibility

On August 24, 1990, the University of Western Ontario requested that Council consider the new Master of Science and Doctor of Philosophy programs in Neuroscience for funding eligibility. Council, according to established procedures, referred the programs to its Academic Advisory Committee. The programs were also referred to the Ministry of Health for comment. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on January 19, 1990 these programs passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed MSc and PhD programs in Neuroscience offer interdisciplinary training in a number of areas including neural substrates of behaviour, neurophysiology, neurodevelopment, neuroanatomy, neuropharmacology, and cell and molecular biology.

The University of Western Ontario's submission indicates that approximately 20% of the population is affected by disorders and disabilities that involve the brain, including stroke, addictive disorders, environmental neurotoxins, and trauma.[1] The resultant treatment, rehabilitation and related costs of disorders and disabilities that affect the brain incurrs substantial economic costs. The University indicates that, for example, the estimated 42,500 cases of Alzheimer's disease in Ontario, represent an annual cost of $510 million.[2]

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[1] University of Western Ontario, Application for Approval of Funding of a Masters and Doctoral Program in Neuroscience at the University of Western Ontario, August 24, 1990, p. 1.

[2] Ibid.

In the United States, the 1990s have been officially declared the "Decade of the Brain". In support of this announcement the American government has allocated a significant amount of new money to support additional neurological research.

The Economic Summit Countries have also launched a new initiative, known as the Human Frontier Science Program, which will fund research in brain function and molecular biology.

In Canada, research efforts have also intensified. The Medical Research Council allocated $23,531,847 or 15.6% of its total budget to Neuroscience in 1989-90. An additional $2,828,107 was allocated toward research on vision and hearing. Finally, a Federal Centre of Excellence in Neural Regeneration and Functional Recovery, involving 100 neuroscientists across Canada, was announced by NSERC and MRC in the Fall of 1989.[3]

The province of Ontario has identified the need for more personnel with advanced neuroscience expertise as well. In November 1986, the Ontario Universities Committee on Health Research (OUCHR) held an invitational conference on the state of health research in the province. Neuroscience was identified as one of four key areas to be developed within the Ontario university system. Subsequently, in May 1988, the OUCHR Planning Group for Neuroscience Research recommended that the personnel base in Neuroscience be expanded and that training opportunities be improved.[4]

To meet the growing demand for neuroscientists, universities have begun to establish graduate degree programs in this field. The University of Western Ontario indicates that, as of 1990, 77 PhD programs in neuroscience were offered by North American universities, 22 of which were established in the last two years. Of the total number, only six are offered in Canada (Laval, McGill, British Columbia, Calgary, Montreal and Saskatchewan universities).[5] There is no program available in Ontario.

Program graduates will find opportunities for employment within universities in basic science departments such as Anatomy, Computer Science, Pharmacology, Physiology and Psychology as well as in clinical departments such as Neurology, Neurosurgery, Ophthalmology, Otolaryngology and Pathology.

Within industry, graduates will find employment within the pharmaceutical industries involved in the development of health-related technologies such as neural prostheses, as well as high technology research industries in which knowledge about the brain is being applied to the development of computers, artificial intelligence, and robotics.[6]

The University of Western Ontario's submission contained a wide variety of examples of actual positions advertised in 1990 for which program graduates would be qualified. Positions included Neuroscientist with Parke-Davis (Warner Lambert);

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[3] Ibid., p. 2.

[4] Ibid., p. 6.

[5] Ibid., p. 2.

[6] Ibid., p. 3.

Staff Scientist with the Playfair Neuroscience Unit, University of Toronto; Health Science Administrator with the National Institute on Aging/National Institutes of Health; Assistant Professor in Visual Cognitive Neuroscience, Ohio State University; numerous university faculty positions in neurobiology at a variety of institutions; Neuroscientist with the Medical Research Council Cyclothon Unit, United Kingdom; Neurobiologist and Neuropharmacologist with Syntex;
and many others.[7]

The University of Western Ontario argues that "the explosive expansion of neuroscience will continue for some time and is not limited to Ontario or to Canada, but is world-wide."[8]

Comments received from the Ministry of Health indicated that the field of neuroscience research is "generally regarded as one of high priority" and that the Ministry supported the development of the program since

> it satisfies the need for an Ontario based program, the research interests in support of new initiatives in the rehabilitation and long-term care sectors and increases the profile of neurosciences.[9]

Comments from the Canadian Neurological Society also substantiated the societal need for the program and indicated that the development of such a program was "long overdue".[10]

Student demand for the programs appears to be strong. The University received over 20 enquiries about the programs in 1990. The University projects an enrolment in the programs of 10 MSc and 5 PhD students per year. A steady-state total enrolment of 35 students (20 MSc and 15 PhD) is projected to be achieved by 1992-93.[11]

Given that these programs would be unique in Ontario, the Academic Advisory Committee is satisfied that student demand would be sufficient to meet the University's enrolment projections.

The Academic Advisory Committee is convinced of the societal need and student demand for these programs.

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[7] Ibid., Appendix C.

[8] Ibid., p. 5.

[9] Letter from Pat Baranek, Manager, Health Human Resources Policy, Ministry of Health, November 22, 1990, p. 3.

[10] Letter from Dr. R. J. Riopelle, President, Canadian Neurological Society, to Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, January 7, 1991.

[11] University of Western Ontario, Response to OCUA Request for Additional Information, November 13, 1990.

3. Consistency with Aims, Objectives and Existing Strengths

The University of Western Ontario indicates that neuroscience is an area of "excellence". The twenty-three core faculty members have been selected from departments such as Physiology, Psychology, and Clinical Neurological Sciences, on the basis of their research excellence and commitment to teaching. Over the past five years research support for core faculty members has averaged $75,000 per individual per year.[12]

The programs have the use of significant laboratory space and research equipment located within the University, University Hospital, Victoria Hospital, Parkwood Hospital, the Lawson Research Institute and the Robarts Research Institute.

These programs have been included in the University's five-year graduate plan since 1989.

The Academic Advisory Committee is satisfied that the Master of Science and Doctor of Philosophy programs in Neuroscience are consistent with the aims, objectives and existing strengths of the University of Western Ontario.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Master of Science and Doctor of Philosophy programs in Neuroscience at the University of Western Ontario be recommended by Council for funding eligibility.*

Academic Advisory Committee
November 23, 1990

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[12] Ibid., p. 6.

Appendix M

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in Sociology in Health and Aging (PhD) University of Western Ontario

New Field Within an Existing Graduate Program Considered for Funding Eligibility

On August 16, 1990, the University of Western Ontario requested that Council consider the new field in Health and Aging within an existing Doctor of Philosophy program in Sociology for funding eligibility. Council, according to established procedures, referred the new field to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on February 5, 1990 this new field passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed new field of Health and Aging within the doctoral program in Sociology will produce highly trained sociologists needed in both teaching capacities within universities and as researchers in the public and private sectors. The University of Western Ontario's submission suggests that, to some extent, university educational opportunities in this specialization lag behind the societal need for expertise.

Although the submission indicates that the Medical Sociology and Aging sections within the American Sociological Association are among the fastest growing within the discipline, the recruitment efforts of sociology departments across Canada have not been successful in recruiting qualified Canadian faculty. Of five recently advertised positions in medical sociology, two were filled by Americans and three remain unfilled.[1] New positions opening up for medical sociologists within medical schools are further increasing the competition for doctoral expertise in this area.

Additional competition for expertise in this area results from an increase in demand from the public and private sectors. There has recently been a strong commitment on the part of granting agencies to encourage research in the area of health and aging. For example, the Social Science and Humanities Research Council of Canada has earmarked special funds for research initiatives in population and aging over the past decade. Health and Welfare Canada established the National Health Research and Development Program and the Ontario government funded the establishment of the Gerontology Research Council of Ontario[2] and the Ontario Gerontology Association.[3] The University identified a variety of other organizations which have recently begun to utilize experts in health and aging to conduct research including Health and Welfare Canada, the Canadian Public Health Association and the Canadian Association on Gerontology.[4]

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[1] University of Western Ontario, Application for Approval of Funding of a PhD program in Sociology at the University of Western Ontario, August 16, 1990, p. 4.

Letters submitted in support of the need for program graduates suggest that the need for graduates is great and long-term. For example, the Chair of the Research Committee of the Canadian Association on Gerontology stated:

> ...it has become clear to me that sociology is lagging behind other disciplines in the training of graduate students in gerontology and gerontological-related areas. There is an urgent need for a sociology programme that will train theoretically-informed and methodologically sound sociologists in the field of aging.[5]

Comments from the Health Services and Promotion Branch of Health and Welfare Canada also suggest that the societal need for graduates is widespread:

> For several years, health care planners and providers have become increasingly aware of the value of research on population health, health care utilization, and the health needs of distinct groups in our society. From the public sector point of view, it is not unreasonable to assume that medical sociologists and social gerontologists will have important roles to play in assisting in the development and planning of our society's agenda for health.
>
> Sociological research on issues related to health and aging has indeed attracted the attention of health care policy-makers and planners. The perspectives described in Achieving Health For All and in Striking a

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[2] This Council was forced to surrender its charter and cease operations as of July 30, 1990, due to lack of provincial funding and insufficient private donations. However, the former Chairman assured Council that the need for additional research in health and aging was significant. Letter from Dr. Ronald Bayne, Chairman, Gerontology Research Council of Ontario, to Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, January 4, 1991.

[3] Ibid., pp. 2 - 3.

[4] Ibid., p. 3.

[5] Letter from Dr. Ellen Gee, Chair, Social Sciences Division and Research Committee, Canadian Association on Gerontology, to Dr. T.R. Balakrishnan, November 20, 1990.

> Balance, two discussion papers published by the Department of National Health and Welfare in 1986 and 1988 respectively, clearly focus on issues that are within the expertise of sociologists. The recognition that the health of Canadians is importantly influenced by social factors such as family structure, an aging society, and growing cultural diversity suggests that there is a growing need for sociological research in these areas. It seems possible therefore that health planners at all levels of government will require the expertise of individuals with research experience in the sociology of health and aging.[6]

The Academic Advisory Committee also reviewed letters documenting a need for program graduates from Statistics Canada, the National Advisory Council on Aging, the Thames Valley District Health Council, Middlesex London Health Unit, the Canadian Public Health Association and the Canadian Population Society.[7]

The University of Western Ontario intends to enrol its first two students in the new field in 1991. New admissions are expected to remain stable at the level of three per year thereafter. Total enrolment is expected to reach the steady-state level of 11 students by 1994-95.[8]

The University has indicated that student demand for the program will be significant. A number of undergraduate and MA students within the sociology department have indicated a desire to pursue doctoral work in the area of Health and Aging. Over the past five years, fifteen of the University's Master's students have specialized in the area of Health and Aging. Four who wished to enrol in doctoral studies in this specialization ultimately enrolled in programs at American universities due to the absence of Canadian programs.[9]

In Ontario, only the University of Toronto formally offers a specialization in health and aging, although the Sociology departments at McMaster, York and Waterloo universities occasionally graduate PhDs whose interests are related to medical sociology. Carleton University and the University of Waterloo do not usually offer training in this area.[10]

The University of Western Ontario notes that of the 31 doctoral degrees in sociology awarded in 1988-89, only four were awarded in the area of health and aging.

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[6] Letter from R.A. Heacock, Director General, Extramural Research Programs Directorate, Health Services and Promotion Branch, Health and Welfare Canada, to Dr. T. B. Balakrishnan, University of Western Ontario, November 21, 1990.

[7] University of Western Ontario, Response to OCUA Request for Additional Information, November 29, 1990, Attachments.

[8] Ibid., Attachment 1.

[9] University of Western Ontario, Application for Approval of Funding of a PhD program in Sociology at the University of Western Ontario, August 16, 1990, p. 5.

[10] Ibid., p. 13.

The Committee is satisfied that in light of the evidence regarding societal need and regionally-based student demand, duplication of aspects of existing programs is justifiable.

The Academic Advisory Committee is satisfied that there is convincing evidence of societal need and student demand for the new field of Health and Aging within the PhD program in Sociology at the University of Western Ontario.

3. Consistency with Aims, Objectives and Existing Strengths

The proposed Sociology program in the field of Health and Aging builds upon the existing strengths of the University at both the masters and doctoral level. The PhD program in Sociology in Social Demography and the MA program underwent a periodic appraisal by OCGS in 1986-87 and were deemed to be of "good quality", the highest quality rating awarded.

The University of Western Ontario's Sociology department is currently the fifth largest sociology department in Canada and the third largest in Ontario.

The proposed new field benefits from the existence of two research centres - The Centre for Health and Well-Being and the Interdisciplinary Group on Aging. Both will provide valuable training and research experience as well as financial assistance to doctoral students specializing in the area of Health and Aging.[11]

This program has been included in the University's five-year graduate plan since 1988.

The Academic Advisory Committee is satisfied that the Doctor of Philosophy program in Sociology in Health and Aging is consistent with the aims, objectives and existing strengths of the University of Western Ontario.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Doctor of Philosophy program in Sociology in Health and Aging at the University of Western Ontario be recommended by Council for funding eligibility.*

Academic Advisory Committee
December 12, 1990

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[11] Ibid., p. 12.

Appendix N

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in Sociology in Social Class and Social Change (PhD) University of Western Ontario

New Field Within an Existing Graduate Program Considered for Funding Eligibility

On August 16, 1990, the University of Western Ontario requested that Council consider the new field in Social Class and Social Change within an existing Doctor of Philosophy program in Sociology for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on February 16, 1990 this new field passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed new field of Social Class and Social Change within the doctoral program in Sociology will meet a need for faculty within Canadian universities and for researchers capable of conducting sophisticated quantitative analyses of issues dealing with problems of class and change within the private and public sectors. The University of Western Ontario identifies pay equity, the impact of technological change in the labour market, and the fit between educational training and labour force entry as some examples of issues for which the skills of program graduates would be required.

Given that Social Class and Social Change is an area of expertise central to the discipline of Sociology, the impending retirements within the ranks of sociologists will create an increased demand for new doctoral graduates.[1] This need is substantiated by comments from the Editor of the Canadian Review of Sociology and Anthropology who stated:

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[1] University of Western Ontario, Application for Approval of Funding of a PhD Program in Sociology at the University of Western Ontario, August 16, 1990, p. 7.

> ..."Social Class and Social Change" is one of the most central to Canadian sociological research, if not the most central topic...Adding this graduate specialty at the University of Western Ontario must be seen as putting your program at the centre of sociological work. Also, it is difficult to imagine a university or college program in sociology being "worth its salt" if it did not have teachers and researchers in the area of social class and change. This will ensure a continuing need for people in the area to replace retirees...
>
> Yours is a truly unusual program in its breadth and strength of resources. It is difficult to see how it could be argued that there is a Canadian sociology graduate program with richer resources for training students in social inequality studies. This has to mean that your students will be highly marketable.[2]

The Academic Advisory Committee notes that all PhD programs in Sociology in the province (offered at Carleton, McMaster, Toronto, Waterloo, and York universities) offer specialization in Social Class and Social Change. The University of Western Ontario notes that during 1988-89, only 9 students actually completed their doctorate in this area.[3] The University of Western Ontario argues that the proposed new field will meet a regional need for doctoral study in this specialization. As well, the University notes that the Department of Sociology's combined strength in quantitative and historical research methods at Western makes the proposed program somewhat unusual among Sociology departments in Ontario.[4]

Student demand for the new field is expected to originate primarily from students completing the Master's program in Sociology at the University of Western Ontario. The University projects an initial enrolment of two students in 1991-92 increasing to the steady-state admission level of three students per year by 1992-93. The total steady-state enrolment level of 11 students is expected to be achieved by 1994-95.

It is the opinion of the Academic Advisory Committee that the need for this new field is primarily an academic need, and that the new field will strengthen and complement the existing specialization in Social Demography and the proposed new field in Health and Aging to give the University of Western Ontario a broadly based Sociology program at the doctoral level.

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[2] Letter from Dr. James Curtis, Editor, Canadian Review of Sociology and Anthropology, and Professor of Sociology, University of Waterloo, to Dr. T.R. Balakrishnan, University of Western Ontario, November 20, 1990.

[3] University of Western Ontario, Application for Approval of Funding of a PhD Program in Sociology at the University of Western Ontario, August 16, 1990, p. 14.

[4] Ibid., p. 14.

The Academic Advisory Committee is convinced of the societal need and student demand for this new field within the existing doctoral program in Sociology at the University of Western Ontario.

3. Consistency with Aims, Objectives and Existing Strengths

The proposed Sociology program in Social Class and Social Change builds upon existing strengths of the University of Western Ontario in the discipline of Sociology at both the masters and doctoral level. A periodic appraisal of the existing programs deemed them to be of "good quality", the highest quality rating awarded. The existing department is the third largest in Ontario and the fifth largest in Canada.

With regard to particular strengths in the area of Social Class and Social Change, the Editor of the Canadian Review of Sociology and Anthropology stated:

> You are to be envied and commended for the number and breadth of resources your department has amassed in the area. I am reminded...of the range of strong scholars of the middle and senior ranks your department has in this area...These scholars represent the spectrum of research approaches in studies of social inequality, ranging from the qualitative and historical work of Allahar, Clark, Hewitt, and McQuillan to the quantitative work of Baer, Grabb, Johnston and Rinehart...To a person, their work is highly regarded, and it appears very frequently in the best journals and major book outlets in Canada and internationally.[5]

This program has been included in the University's five-year graduate plan since 1988.

The Academic Advisory Committee is satisfied that the new field in Social Class and Social Change within the Doctor of Philosophy program in Sociology is consistent with the aims, objectives and existing strengths of the University of Western Ontario.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Doctor of Philosophy program in Sociology in Social Class and Social Change at the University of Western Ontario be recommended by Council for funding eligibility.*

Academic Advisory Committee
December 12, 1990

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[5] Letter from Dr. James Curtis, Editor, Canadian Review of Sociology and Anthropology, and Professor of Sociology, University of Waterloo, to Dr. T.R. Balakrishnan, University of Western Ontario, November 20, 1990.

Appendix O

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Master of International Business Administration (Intl MBA) York University

New Graduate Program Considered for Funding Eligibility

On September 14, 1990, York University requested that Council consider the new Master of International Business Administration (Intl MBA) program for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on February 16, 1990, this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvements.

2. Societal Need and Student Demand

The proposed Master of International Business Administration program combines international and core MBA functional courses with foreign language courses, as well as courses specializing in a particular region and country. In addition, it provides for study exchanges in leading international business schools as well as a working internship abroad in the country of specialization. Course work is regularly supplemented by special seminars led by experts from international business and government.[1] Applicants must pass an oral foreign language proficiency exam.

The program was developed in order to meet a need for international management knowledge and to provide Canadians with an opportunity to develop the knowledge and skills necessary to be economically competitive beyond North American borders.

York University argues that the globalization of economic competition has created an urgent need for companies and employees that can successfully conduct business across borders with sensitivity to local customs and language.

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[1] York University, Request for Formula Funding, Masters Programme in International Business Administration (Intl MBA), September 1990, p. 2.

A 1985 report of the Canadian Corporate Higher Education Forum entitled Going Global reported that:

> No comprehensive degree program incorporating business-management functions, foreign languages and geographic or cultural area specialization is available from any of the 87 educational institutions recognized by the Association of Colleges and Universities of Canada.[2]

In 1988, recognizing the crucial importance that success in the international marketplace had for the continued growth of the provincial economy, the Ontario government stated:

> The explosion of new technologies, the increasingly competitive global market, and the resultant need for business and government to develop new skills and knowledge has made it critical that Ontario establish a world-class centre specializing in international business.[3]

In fulfilment of a commitment made during the 1987 Speech from the Throne, the Ontario government announced a competition for funds to establish a Centre of International Business at an Ontario university in order to enhance trade opportunities for Ontario's industrial and business sectors. In 1988, the funds were awarded jointly to York University, the University of Toronto and Wilfrid Laurier University, with the headquarters located at York University.[4]

The Academic Advisory Committee reviewed numerous letters written in support of the societal need for graduates. As comments from the Royal Bank of Canada illustrated, program graduates will be in strong demand:

> The recent years of heightened globalization has made it essential for us to hire graduates who have acquired basic international business skills and possess knowledge of international environments. This not only allows our new people to operate effectively in the international financial markets, but it also ensures a better understanding of the requirements, problems, and issues which our clients face in the challenge for international competitiveness and global expansion. We believe that an international MBA has become an essential addition to the Canadian management education.[5]

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[2] Ibid., p. 11.

[3] Ontario Ministry of Colleges and Universities and Ontario Ministry of Industry, Trade and Technology, Request for Proposals "Centre of International Business", February 1988, p. 1.

[4] Statement by Lyn McLeod, Minister of Colleges and Universities at a News Conference to Announce the Ontario Centre of International Business, April 26, 1988, Queen's Park.

[5] Letter from Mr. Allan R. Taylor, Chairman and Chief Executive Officer, The Royal Bank of Canada, to Dr. D.J. Horvath, York University, July 13, 1990.

The societal need for the program was further substantiated by comments from Wood Gundy Inc., which noted:

> There is very little that we do today in the business world that does not reach outside of our national borders. The establishment of the free trade treaty between Canada and the United States, Europe 1992, the breakdown of the Eastern Block and the rapid industrialization of South East Asia are all compelling reasons for the development of a specialized approach to international business.
>
> As post-war North Americans, we have a relatively parochial view of the world. For those of us who have lived and worked outside of Canada, it is evident that there is a serious need for a more structured approach to educating Canadian business people on the international business environment. I have no doubt that both Wood Gundy, and our parent CIBC, would wish to have the opportunity to consider hiring graduates from your proposed programme.[6]

The Committee also reviewed letters demonstrating the long-term and significant societal need for graduates from the Bank of Montreal, The Molson Companies, McKinsey & Company, American Express, Olympia & York Developments Limited and Coopers and Lybrand.[7]

York University has been operating this program since 1989. In the first year of the program, twenty-two students were admitted. In 1990, the number admitted increased to thirty-four students. In 1991 the program will achieve the steady-state admission level of fifty students per year. The full-time steady-state enrolment level of one hundred students is expected to be achieved in 1992.[8]

York University indicates that over 200 candidates applied for the thirty-four positions in the program available in 1990. The University indicates that the average age of those accepted has been twenty-six years and that the candidates' experiences cut across all segments of business and industry.[9] Student demand has come primarily from within Ontario; however, of the students admitted in 1990, six originated from universities located in provinces outside Ontario and three students originated from American universities.[10]

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[6] Letter from Mr. John S. Hunkin, President and Chief Operating Officer, Wood Gundy Inc., to Dr. D.J. Horvath, York University, July 3, 1990.

[7] York University, Request for Formula Funding, Masters Programme in International Business Administration (Intl MBA), September 1990, Appendix 1.

[8] Ibid., p. 13.

[9] Ibid., p. 14.

[10] York University, Response to OCUA Request for Additional Information, December 11, 1990, p. 2.

York University expects that student demand for the program will continue to increase, and that as a result, the eligible applicants will be of extremely high quality.

The Committee, although recognizing that this program is unique, believes that the degree designation itself could be more unique, for example such as MIBA, in order to prevent this program from being confused with a specialization in International Business within the standard MBA program.

The Academic Advisory Committee is convinced of the societal need and student demand for the International MBA program at York University.

3. Consistency with Aims, Objectives and Existing Strengths

The Faculty of Administrative Studies at York University has played a leading role in the development of international management education in Canada for more than twenty years. The first MBA electives in international policy were introduced in the early 1970s, followed by an International Business concentration within the MBA program in 1974. The International MBA is a natural outgrowth from this area of existing strength.

The program is consistent with York University's commitment to maintaining and further developing its position as a leader in management education in Canada and internationally.

The faculty and library resources necessary to offer the program are already in place and the program is the hub of the provincially-funded Ontario Centre for International Business. The program has also received a number of grants, endowments and donations from the private sector.

The program benefits from York University's strategic international alliances and from the frequent participation of both practising and retired senior corporate executives who assume teaching and/or guest lecturing responsibilities.

Corollary academic strengths include York University's Centre for Research on Latin America and the Caribbean, the York University/University of Toronto Joint Centre for Asia Pacific Studies and the Osgoode Hall Law School.

The program has been included in the University's five-year graduate plan since 1989.

The Academic Advisory Committee is satisfied that the Master of International Business Administration program is consistent with the aims, objectives and existing strengths of York University. However, the Committee strongly suggests that the degree designation be changed to MIBA to avoid confusion with standard MBA programs offering an international specialization.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Master of International Business Administration program at York University be recommended by Council for funding eligibility.*

Academic Advisory Committee
December 12, 1990

Appendix P

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Master of Arts in Translation (MA)
York University

New Graduate Program Considered for Funding Eligibility

On September 14, 1990, York University requested that Council consider the new Master of Arts program in Translation for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on June 27, 1990, this program passed a rigorous academic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, did not require any improvement.

2. Societal Need and Student Demand

The proposed Master of Arts program in Translation (English/French, French/English) is designed to "prepare candidates to do original research and will provide the opportunity for students to specialize in areas for which there is a high demand for professors and professional translators."[1] Admission to this program requires professional experience as a translator.

York University indicates that the proposed MA program in Translation will be located within the School of Translation at Glendon College and will build on the existing BA program currently offered there.

The Secretary of State recently commissioned two important reports on the need for translators in Canada. Firstly, the Charpentier Report, a market and industry study, determined that Canada will need 3,470 translators over the next five years.[2] Since BA level translation graduates can work as professional translators, these statistics do not directly support the need for large numbers of MA graduates in Translation. Rather, the findings of this report suggest a tremendous need for individuals who can teach translation at the undergraduate level. York University indicates that graduates of its MA program in Translation will be qualified to fill part-time and part-course positions within the School of Translation at Glendon College.

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[1] York University, Request for Formula Funding M.A. in Translation, September 1990, p. 2.

[2] Ibid., Appendix B.

Secondly, a 1990 report entitled Examen des Services en langues officielles (Phase II), Appréciation des solutions de rechange highlights many of the translation needs stemming from the federal Constitution Act of 1982 and the Official Languages Act. With the formal declaration of English and French as Canada's two official languages and the attendant rights and privileges associated with this status, the need for translation services has increased dramatically during the 1980's. This report states further that at a minimum this demand is expected to be remain stable in the future.

The Department of the Secretary of State of Canada further stresses the societal need for translators in the following statement:

> Au Canada, la politique de la dualité linguistique, dont le gouvernement canadien fait la promotion depuis le début des années 70, a eu comme résultat de créer des besoins en traduction dans la plupart des provinces et dans les territoires, qui offrent des services dans sa langue à la minorité linguistique. En outre, le secteur privé fait également appel à la traduction pour répondre aux besoins de sa clientèle qui cherche de plus en plus, à l'instar des services gouvernementaux, à être servi dans sa langue.[3]

Similarly, the French Languages Services Act, 1986, which came into effect in Ontario on November 18, 1989, guarantees to all persons and corporate entities the right to communicate with and receive services in the French language from the Ontario government. The implementation of this Act has escalated the demand in Ontario government offices, province-wide, for translation services in both official languages.

In particular, the Greater Toronto Region (GTR), host to the majority of Government of Ontario offices, and an industrial centre for the province, has become a large employer of translators and user of translation services. The GTR also employs a large number of professional translators that are interested in professional development beyond their BA-level qualifications. Part-time study is unfortunately impeded by the fact that the three existing graduate translation programs in Canada are located at the Universities of Ottawa, Laval, and Montreal, which are not within commuting distance of Toronto. As the Dean of the School of Graduate Studies and Research at the University of Ottawa recognizes,"it is essential that the programs be delivered where the clientele is based".[4] Accordingly, York University argues that there is an acute regional need for a MA program in Translation in the Toronto region.

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[3] Letter from Alain Landry, Assistant Under Secretary of State, Department of the Secretary of State of Canada, Ottawa, July 11, 1990.

[4] Letter from Dr. Nicole Bégin-Heick, Dean of the School of Graduate Studies and Research, University of Ottawa to Dr. Sandra W. Pyke, Dean, Faculty of Graduate Studies, York University, September 4, 1990.

In recent years, York University has had difficulty in locating qualified individuals to fill advertised faculty positions. For example, in 1989-90 there were only two qualified applicants for a tenure stream position in the School of Translation. Similar experiences of Laurentian, Montreal, and Concordia universities suggest that a national shortage of translation professors exists. The York University program will respond to this academic need by producing graduates that will be qualified to teach both part-time and part courses in translation.

York University argues that the demand for undergraduate education in translation has increased and is expected to increase further. In the last 7 years, enrolment in the undergraduate Translation program at Glendon College has increased by 22 percent. In 1990-91, fewer than 43 percent of those who applied were admitted to this program. This increase in the undergraduate pool increases the number of students who may decide to pursue graduate study in translation. York projects that 12 individuals a year would apply to the MA program from its own undergraduate pool.

The demand for graduate education in translation from employed professionals has also grown. A survey conducted by the Association of Translators and Interpreters of Ontario revealed that there are 40 professional translators presently located in the Toronto area who would be interested in enrolling in the proposed MA program at Glendon College.

The program will be offered on a full-time and part-time basis.

York University believes that the proposed MA program in Translation is both "geographically" and "academically" unique. Relative to the existing Master's programs in Translation at the University of Ottawa, University of Laval, and University of Montreal, York University claims that its program further differentiates itself since its program places more emphasis on the academic rather than the technical aspects of translation. The University also argues that the proposed program's breadth of research opportunities is unique. Specifically, the inclusion of the field of bilingual communications as an area of research and the possibility of directed observational and experimental research undertaken with translation firms in the region is not duplicated elsewhere.[5] In light of the societal need for program graduates, the Committee is satisfied that any duplication of the program currently offered at the University of Ottawa is justifiable.

The Academic Advisory Committee is satisfied that there is convincing evidence of societal need for this program and that there will be sufficient student demand.

3. Consistency with Aims, Objectives and Existing Strengths

The Academic Advisory Committee is satisfied that the development of the MA program in Translation at York University is entirely consistent with York University's commitment to the development of programs of study in both official languages. The proposed program is also consistent with the University's commitment to offer programs to part-time students.

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[5] York University, op.cit., p. 6.

The program has been included in the University's five-year plan since 1988 and has long been a priority in the academic planning of the School of Translation and Glendon College. The College has significantly increased the resources of the School of Translation to facilitate the offering of this program.

The MA program in Translation is based upon existing strengths at the undergraduate level - a BA program has been offered since 1983. The proposed program also benefits from established networks between York University professors, professional translators, and translation agencies which will provide students with opportunities for research as well as exposure to current concerns in the field.

Corollary program strengths also exist within departments of French, English, Multidisciplinary Studies and Linguistics. York University argues that the proposed MA program will be "a model of cooperation among a number of departments and research units".[6]

The Committee notes that the necessary library resources and faculty are already in place.

The Committee is satisfied that the MA program in Translation is consistent with the aims, objectives and existing strengths of York University.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Masters of Arts program in Translation at York University be recommended by Council for funding eligibility.*

Academic Advisory Committee
December 12, 1990

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[6] York University, op.cit., p. 10.

Appendix Q

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in Economics (PhD) York University

Existing Graduate Program Considered for Funding Eligibility

On September 14, 1990, York University requested that Council consider the Doctor of Philosophy program in Economics for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on January 19, 1990, this program passed a rigorous periodic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, was deemed to be of "good quality", the highest classification awarded within the appraisal process for existing programs.

2. Societal Need and Student Demand

The PhD program in Economics was established in 1978. It was first submitted to the Ontario Council on University Affairs for a recommendation regarding funding eligibility in 1983. On the advice of the Academic Advisory Committee, the Ontario Council on University Affairs recommended that funding eligibility be denied the program at that time. This recommendation was accepted by the Minister.[1]

At that time, the Academic Advisory Committee report stated:

> The Committee examined existing and projected program capacities in the six funded Economics programs. After a survey of the programs involved, the Committee is convinced that there are existing unused capacities within the funded programs - certainly enough to accommodate York's current small enrolment of 15 students.
>
> ...given that there does not appear to be a growing demand for doctoral programs in Economics from Ontario and Canadian residents, the

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[1] See Ontario Council on University Affairs, Eleventh Annual Report, 1984-85, Advisory Memorandum 84-VII.

> Committee remained concerned about the need for another program whether unique or not.

The Committee then engaged an external consultant to ascertain the societal need for and uniqueness of the program. The Committee indicated that the consultant

> ...was unable to indicate that there is a definite need for the program - something which must be documented carefully given that six funded doctoral programs already exist.[2]

The Committee concluded that the York University program would not be meeting a need that could not be met by the six programs in the province which were already in receipt of public funding.

To qualify for the reconsideration of a program which has been previously denied funding eligibility, an institution must demonstrate that there is significant new information about the program[3]. To justify its request for reconsideration, York University argued that

> the program has changed significantly over the past several years and is thus radically different in form and substance from the program as presented in an earlier submission (1983). In particular, the current area of specialization as identified in our recent periodic appraisal (1989) is Applied Economic Theory. In addition, changes have occurred in the demographics relating to the need for new Ph.D.'s in Economics, along with changes in the OCUA funding criteria.[4]

The Academic Advisory Committee agreed to reconsider the program.

The doctoral program in Economics at York University specializes in Applied Economic Theory. Originally, the program specialized in Economic Policy and Planning. In addition to core theory, mathematical and statistical techniques, the following four sub-specializations are offered:

- Natural Resources/Environmental Economics;
- International Economics and Industrial Organization;
- Public Economics and Policy; and
- Market Structure and Strategic Behaviour.[5]

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[2] Ibid., pp. 198 - 199.

[3] Ontario Council on University Affairs, Program Procedures Manual, p. 2.1.7.

[4] York University, Request for Formula Funding, Doctoral Program in Economics, September, 1990, p.1.

[5] Ibid., p.3.

York University indicates that the primary objective of the program is to produce graduates "who meet important societal needs through specialization in the principal sub-areas of the program."[6] The University also attempts to "provide a program which is attractive and accessible to women and to students who wish to complete their studies on an entirely part-time basis."[7]

York University argues that the societal need for doctoral graduates in economics to replace the retiring cohort of the professoriate as well as to meet needs for expertise in the public and private sectors is significant. A 1988 survey of unfilled probationary and tenured faculty positions in economics departments across Canada revealed that there were between 64 and 69 unfilled positions in 1989-90.[8] Letters from other universities in Ontario further substantiated that the societal need for doctoral graduates is strong.

However, the Academic Advisory Committee notes that the student demand for this program across the Ontario university system has been extremely stable. According to Macroindicator Data, 1989-90, new admissions to doctoral programs in economics in Ontario increased from 58 students in 1983-84 to 59 students in 1989-90, with the average number of new admissions over the same period being 55 students. Macroindicator Data, 1989-90, indicates that York University has admitted on average 3.4 full-time students per year and 0.4 part-time students per year between 1983-84 and 1989-90.[9] The Committee also notes that, relative to the six other funded programs in the system, York University's program is producing far fewer graduates - just 5 graduates in the past 7 years, while programs with the same number of faculty or fewer faculty such as the University of Western Ontario and McMaster University respectively have produced 42 and 32 graduates over the same time period.[10] The system as a whole has produced an average of 31 graduates per year between 1983-84 and 1989-90. York University has contributed just 5 out of 215 of the total number of graduates produced. This represents just 2 percent of the total system output of doctoral graduates in economics.[11]

Furthermore, the Committee notes that excess capacity exists in the currently funded programs within the system. The University of Western Ontario states:

> ...in our Economics graduate program at Western we have the capacity, and the desire, to increase the enrolment in our Ph.D. program by approximately 25 percent to achieve what we believe to be an efficient

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[6] Ibid.

[7] Ibid.

[8] Ibid., Appendix A.

[9] Ontario Council on Graduate Studies, Macroindicator Data 1989-90, pp. 105 - 106.

[10] Ontario Council on Graduate Studies, Macroindicator Data 1989-90, pp. 105-111.

[11] Ibid., pp. 105 - 111.

> scale of operations. However, the major stumbling block to date has been a relative scarcity of top quality applicants from Canadian universities. I suspect that this situation will gradually improve as the emerging demographics gives a strong signal to undergraduates that graduate training in Economics offers rewarding employment opportunities.[12]

Other universities, such as Queen's also noted that, despite a societal need for graduates, student demand for the program is currently insufficient to meet this need:

> ...your estimates for the excess demand in economics are in fact conservative ones,... I am pleased to confirm that your proposal meets the "societal need" criteria.
>
> I do however have one reservation. There is nothing in your proposal, nor in the OCUA procedures, that ensures that funding of the York Ph.D. programme will lead to an increased total supply of Ph.D.s in the Canadian (Ontario) system, rather than bidding up the awards offered to those students who would have been in the system anyway.[13]

The Academic Advisory Committee is satisfied that there is a societal need for graduates of the program. However, it is not convinced that there is sufficient student demand to warrant the funding of an additional existing program, given that there is excess capacity within the six programs within the university system that are already publicly-supported and that York University is not making a significant contribution to the production of doctoral degree graduates relative to the rest of the system. The Committee notes that if each of the currently funded programs had graduated just one more student per year between 1983-84 and 1989-90, and York had produced no graduates at all, the total number of gradates in the system would still have been greater in number.

Although the Academic Advisory Committee is satisfied that there exists a societal need for program graduates, it is not satisfied that there is convincing evidence of student demand for this program as is required by OCUA's funding criteria.

3. Funding Recommendation

As the program does not meet, in the opinion of the Academic Advisory Committee, all of Council's funding criteria, the Committee, therefore, recommends to the Ontario Council on University Affairs that:

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[12] Letter from Dr. David Burgess, Chairman, Department of Economics, University of Western Ontario, to Dr. Charles Plourde, York University, August 1, 1990.

[13] Letter from Dr. Douglas D. Purvis, Professor and Head, Department of Economics, Queen's University, to Dr. Charles Plourde, York University, September 7, 1990.

enrolment in the Doctor of Philosophy program in Economics at York University not be recommended by Council for funding eligibility.

Academic Advisory Committee
December 12, 1990

Appendix R

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Doctor of Philosophy in Social Anthropology (PhD)
York University

Existing Graduate Program Considered for Funding Eligibility

On September 14, 1990, York University requested that Council consider the Doctor of Philosophy program in Social Anthropology for funding eligibility. Council, according to established procedures, referred the program to its Academic Advisory Committee. The Committee's findings, resulting from the application of Council's criteria for funding eligibility, are summarized below.

1. Academic Appraisal

The Council of Ontario Universities has certified that on October 20, 1989 this program passed a rigorous periodic appraisal conducted by the Ontario Council on Graduate Studies and, at the time of appraisal, was deemed to be of "good quality".

2. Societal Need and Student Demand

The PhD program in Social Anthropology was established in 1985. It was first submitted to the Ontario Council on University Affairs for a recommendation regarding funding eligibility in 1985-86. On the advice of the Academic Advisory Committee, the Ontario Council on University Affairs recommended that funding eligibility be denied the program at that time. This recommendation was accepted by the Minister.[1]

At that time, the Academic Advisory Committee report stated:

> Given the lack of evidence in support of this program both in terms of employment opportunities (academic and non-academic) and student demand, the Committee is not satisfied that a definite need exists at the present time for an additional funded doctoral program in Anthropology in the province.[2]

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[1] See Ontario Council on University Affairs, Twelfth Annual Report, 1985-86, Advisory Memorandum 84-VII.

[2] Ontario Council on University Affairs, Twelfth Annual Report, 1985-86, Advisory Memorandum 85-X, p. 161.

To qualify for reconsideration of a program which has been previously denied funding eligibility, an institution must demonstrate that there is significant new information about the program to be considered."[3] To justify its request for reconsideration of this program, York University argued that

> Changes have occurred since submission of the initial request for funding both in the program itself, through the normal development that occurs within a new program, and in the university and external environments. The program has developed its own distinctive niche within anthropology in Ontario which complements and enhances the two other doctoral programs in the province. In particular, the program has developed a unique applied focus and an internship option....the recent OCUA corridor revision exercise has clearly identified a growing concern about the replacement of the professoriate over the next two decades.[4]

The Academic Advisory Committee agreed to reconsider the program.

The focus of the doctoral program in Social Anthropology is in the Social Anthropology of Complex Societies in the Third World and Western countries. Areas of emphasis include agrarian studies; ethnicity and stratification; conflict; political and legal anthropology; culture, technology and development; medical and psychiatric anthropology; and symbolic anthropology. The program operates on an apprenticeship model in which each student is assigned to a faculty member whose research activities match the student's interests.[5]

York University indicates that the goal of the program is "to produce Ph.D. graduates...who have developed an 'anthropological imagination' and approach to complex social issues in the First and Third Worlds, and who are equipped, where necessary, to apply themselves creatively to such problems."[6]

York University argues that the societal need for doctoral graduates in anthropology is primarily an academic one. The University states that "there will soon be a critical need for substantial faculty renewal in Anthropology" that will be international in scope.[7] York University cites statistics prepared for OCUA Corridor negotiations which indicated that there was

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3. Ontario Council on University Affairs, Program Procedures Manual, p. 2.1.7.

4. York University, Request for Formula Funding, Doctoral Program in Social Anthropology, September, 1990, p. 1.

5. Ibid., p. 2.

6. Ibid.

7. Ibid., p. 3.

> an Anthropology faculty complement of 107 in Ontario in 1985 of which approximately half will have retired by the year 2004. This does not take into account deaths, early retirements and the possibility that internationally renowned faculty members in Canada will be lured away to higher paying positions elsewhere in Canada and abroad.[8]

York University also notes that the Canadian Association of University Teachers' CAUT Bulletin carried advertisements for 19 posts in anthropology, many of which were in the field of social or cultural anthropology.[9] The University argues that this suggests a significant societal need for graduates since only 25 doctoral degrees in all fields of Anthropology were awarded in Canada in 1989 according to the Canadian Association of Graduate Schools Annual Statistics. Within the Social Sciences only 50% of those graduating are expected to be available for university positions.[10]

Although York University did provide evidence that doctoral graduates across Canada do find employment in the public and private sectors, the Committee was not provided with any evidence that demonstrated that the societal need being met could not be met by graduates of other social science programs, other than the existence of a formal policy of the Canadian International Development Agency (CIDA) which requires that an anthropologist must be involved in all its overseas planning studies.[11] Despite this, the Committee did not consider that to be evidence of a specific need for graduates of the York University program in particular.

The Academic Advisory Committee notes that there are currently two funded Anthropology programs at the doctoral level in Ontario - one at the University of Toronto and another at McMaster University. Both these programs offer specialization in the four traditional aspects of Anthropology: physical anthropology, social-cultural anthropology, archaeology and linguistics. The York University program is distinct in its applied focus and its specialization upon the social anthropology of complex societies.

Student demand for doctoral study in anthropology generally has been extremely stable. Macroindicator Data 1989-90 indicates that total full-time enrolment in the system was 77 students in 1983-84, and 79 students in 1989-90, with total average enrolment over the same period being 73 students. Part-time enrolment has declined significantly from 13 students in 1983-84 to just 2 students in 1989-90. New admissions reflect the same general stability. After 1983-84 when total new admissions jumped from 7 to 16 students, admission levels have been stable and

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[8] Ibid.

[9] Ibid., p. 4.

[10] Ibid.

[11] Ibid., p. 7.

16 new students were also enroled in anthropology at the doctoral level in 1989-90.[12]

Within individual programs, York University's enrolment has increased between 1985-86 and 1989-90 from 1 full-time student to 12, while the University of Toronto, although a much larger program, experienced a decline in enrolment between 1983-84 to 1989-90 from 62 full-time and 7 part-time students to 47 full-time and 2 part-time students. The program at McMaster University has experienced growth only in its full-time enrolment between 1983-84 and 1989-90 with enrolments totalling 15 increasing to 20 full-time students. Part-time enrolment over the same period dropped from 6 to 0 students.[13]

It is the conclusion of the Committee that the demand for doctoral level study in Anthropology in Ontario has generally remained quite stable. The Committee also notes the program at York University has not yet produced any graduates, therefore, cannot yet claim to have made any contribution toward meeting the societal need for additional academics which will be required by the Ontario university system to replace the retiring professoriate. The Committee believes that it is premature to assume that graduates of York University's program will be able to meet the societal need for replacement professoriate since demand will not be restricted to professors of social anthropology. The Committee also does not believe that there is convincing evidence of a significant change in the student demand for doctoral programs in Anthropology in the Ontario university system since the time the program was originally considered for funding eligibility.

The Committee concludes that at this time, although there is convincing evidence of an academic need for the doctoral graduates in anthropology generally, it has not yet been convincingly demonstrated that this particular program will meet that need, nor has the Committee been convinced that there has been a significant increase in student demand for doctoral education in anthropology generally which would warrant a reversal of the Committee's previous decision.

4. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Doctor of Philosophy program in Social Anthropology at York University not be recommended by Council for funding eligibility.*

Academic Advisory Committee
December 12, 1990

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[12] Ontario Council on Graduate Studies, Macroindicator Data, 1989-90, p. 87.

[13] Ibid.

90-XIII Undergraduate Quasi-Professional, Special and Professional Program Funding 1991-92

1.0 Introduction

In this Memorandum, the Ontario Council on University Affairs recommends on the funding eligibility of fifteen undergraduate programs in accordance with the procedures for full review set out in Advisory Memorandum 82-VII, "Undergraduate Program Approvals" and the procedures for cursory review set out in Advisory Memorandum 89-I "New Undergraduate Quasi-professional, Special and Professional Program Funding".

The following programs were considered by the Academic Advisory Committee for funding eligibility during the 1990-91 cycle of undergraduate program approvals:

Brock University

Health Studies (BA and Hons. BA) - See Appendix A
Applied Linguistics (BA and Hons. BA) - See Appendix B

Carleton University

Social Work (BSW) - See Appendix C

University of Guelph

Agronomy (Hons. BSc[Agr]) - See Appendix D
Food and Dairy Science (Specialized Hons. BSc) - See Appendix E

Lakehead University

Fine Arts (Hons. BFA), Cursory Review - See Appendix F
Music (Hons. BMus), Cursory Review - See Appendix G

Laurentian University

Pharmacy (BSc) - See Appendix H

McMaster University

Civil Engineering and Society (BEng[Soc]), Cursory Review - See Appendix I
Japanese Studies and Another Subject (Combined Honours BA), Cursory Review - See Appendix J

University of Ottawa

Human Kinetics (BSc) - See Appendix K
Pharmacy (BSc) - See Appendix L

University of Western Ontario

Music (BA and Hons. BA), Cursory Review - See Appendix M

University of Windsor

Great Lakes Biology (Hons. BSc) - See Appendix N

York University

Environmental Studies (Hons. BES) - See Appendix O

2.0 Recommendations

Council has considered the advice of its Academic Advisory Committee, which is responsible for recommending on the funding eligibility of all quasi-professional, special and professional undergraduate programs. Council accepts the Academic Advisory Committee's advice, and is convinced that twelve programs should be recommended by the Minister for funding eligibility, even in a time of economic constraint, and that three programs (Health Studies and Applied Linguistics at Brock University and Pharmacy at Laurentian University) did not satisfy all of Council's criteria for funding eligibility.

Accordingly, Council *recommends to the Minister:*

OCUA 90-76
ELIGIBILITY OF ENROLMENT IN THE GENERAL AND HONOURS BACHELOR OF ARTS PROGRAM IN HEALTH STUDIES AT BROCK UNIVERSITY FOR FUNDING PURPOSES

THAT, enrolment in the General and Honours BA program in Health Studies at Brock University not be counted as eligible BIUs for funding purposes.

OCUA 90-77
ELIGIBILITY OF ENROLMENT IN THE GENERAL AND HONOURS BACHELOR OF ARTS PROGRAM IN APPLIED LINGUISTICS AT BROCK UNIVERSITY FOR FUNDING PURPOSES

THAT, enrolment in the General and Honours BA program in Applied Linguistics at Brock University not be counted as eligible BIUs for funding purposes.

OCUA 90-78
ELIGIBILITY OF ENROLMENT IN THE BACHELOR OF SOCIAL WORK PROGRAM AT CARLETON UNIVERSITY FOR 1991-92

THAT, enrolment in the BSW program at Carleton University be counted as eligible BIUs for funding purposes beginning in 1991-92 - the upper years of the program to be in Category 2 with a weight of 1.5 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-79
ELIGIBILITY OF ENROLMENT IN THE HONOURS BACHELOR OF SCIENCE (AGRICULTURE) PROGRAM IN AGRONOMY AT THE UNIVERSITY OF GUELPH FOR 1991-92

THAT, enrolment in the Honours BSc (Agr) program in Agronomy at the University of Guelph be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to be in Category 3 with a weight of 2.0 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-80
ELIGIBILITY OF ENROLMENT IN THE SPECIALIZED HONOURS BACHELOR OF SCIENCE PROGRAM IN FOOD AND DAIRY SCIENCE AT THE UNIVERSITY OF GUELPH FOR 1991-92

THAT, enrolment in the Specialized Honours BSc program in Food and Dairy Science at the University of Guelph be counted as eligible BIUs for funding purposes beginning in 1991-92 - the upper years of the program to be in Category 3 with a weight of 2.0 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-81
ELIGIBILITY OF ENROLMENT IN THE HONOURS BACHELOR OF FINE ARTS PROGRAM AT LAKEHEAD UNIVERSITY FOR 1991-92

THAT, enrolment in the Honours BFA program in Fine Arts at Lakehead University be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to be in Category 2 with a weight of 1.5 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-82
ELIGIBILITY OF ENROLMENT IN THE HONOURS BACHELOR OF MUSIC PROGRAM AT LAKEHEAD UNIVERSITY FOR 1991-92

THAT, enrolment in the Honours BMus program in Music at Lakehead University be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to be in Category 3 with a weight of 2.0 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-83
ELIGIBILITY OF ENROLMENT IN THE BACHELOR OF PHARMACY PROGRAM AT LAURENTIAN UNIVERSITY FOR FUNDING PURPOSES

THAT, enrolment in the BSc program in Pharmacy at Laurentian University not be counted as eligible BIUs for funding purposes.

OCUA 90-84
ELIGIBILITY OF ENROLMENT IN THE BACHELOR OF ENGINEERING AND SOCIETY PROGRAM IN CIVIL ENGINEERING AND SOCIETY AT McMASTER UNIVERSITY FOR 1991-92

THAT, enrolment in the BEng(Soc) program in Civil Engineering and Society at McMaster University be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to receive the McMaster University Engineering and Management program weight of 1.5 for years 2 and 4 and a weight of 2.0 for years 1, 3 and 5 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-85
ELIGIBILITY OF ENROLMENT IN THE COMBINED HONOURS BACHELOR OF ARTS PROGRAM IN JAPANESE STUDIES AND ANOTHER SUBJECT AT McMASTER UNIVERSITY FOR 1991-92

THAT, enrolment in the Combined Honours BA program in Japanese Studies and Another Subject at McMaster University be counted as eligible BIUs for funding purposes beginning in 1991-92 - the upper years of the program to be in Category 2 with a weight of 1.5 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-86
ELIGIBILITY OF ENROLMENT IN THE BACHELOR OF SCIENCE PROGRAM IN HUMAN KINETICS AT THE UNIVERSITY OF OTTAWA FOR 1991-92

THAT, enrolment in the BSc program in Human Kinetics at the University of Ottawa be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to be in Category 2 with a weight of 1.5 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-87
ELIGIBILITY OF ENROLMENT IN THE BACHELOR OF SCIENCE PROGRAM IN PHARMACY AT THE UNIVERSITY OF OTTAWA FOR 1991-92

THAT, enrolment in the BSc program in Pharmacy at the University of Ottawa be counted as eligible BIUs for funding purposes beginning in 1991-92 conditional upon the University satisfying the Ministry of Colleges and Universities that it has secured the necessary resources to develop and ensure the longterm financial viability of the program -

at such time the program to be in Category 3 with a weight of 2.0 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-88
ELIGIBILITY OF ENROLMENT IN THE GENERAL AND HONOURS BACHELOR OF ARTS PROGRAM IN MUSIC AT THE UNIVERSITY OF WESTERN ONTARIO FOR 1991-92

THAT, enrolment in the General and Honours BA program in Music at the University of Western Ontario be counted as eligible BIUs for funding purposes beginning in 1991-92 -the upper years of the Honours program to be in Category 2 with a weight of 1.5 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-89
ELIGIBILITY OF ENROLMENT IN THE HONOURS BACHELOR OF SCIENCE PROGRAM IN GREAT LAKES BIOLOGY AT THE UNIVERSITY OF WINDSOR FOR 1991-92

THAT, enrolment in the Honours BSc program in Great Lakes Biology at the University of Windsor be counted as eligible BIUs for funding purposes beginning in 1991-92 - the upper years of the Honours program to be in Category 3 with a weight of 2.0 as outlined in The Ontario Operating Funds Distribution Manual.

OCUA 90-90
ELIGIBILITY OF ENROLMENT IN THE HONOURS BACHELOR OF ENVIRONMENTAL STUDIES PROGRAM AT YORK UNIVERSITY FOR 1991-92

THAT, enrolment in the Honours BES program in Environmental Studies at York University be counted as eligible BIUs for funding purposes beginning in 1991-92 - the program to be in Category 3 with a weight of 2.0 as outlined in The Ontario Operating Funds Distribution Manual.

Dr. H. V. Nelles,
Chairman

February 15, 1991

Appendix A

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Health Studies (General and Honours BA)
Brock University

New Undergraduate Quasi-professional Program considered for Funding Eligibility

On July 31, 1990, Brock University submitted the General and Honours Bachelor of Arts program in Health Studies to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) and to the Ministry of Health for review and comment.

Council referred the program, and external comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

1. Proposed Curriculum

The proposed curriculum focuses on the study of "health maintenance and the change process in the development of good health from a behavioral and biological sciences perspective."[1]

The program consists of a core of courses supplemented by a broad choice of specific electives. Core Health Studies courses include Introduction to Health Studies, Research Methods for Health Studies, Program Evaluation, Nutrition, Thesis Tutorial, Epidemiology and Disease Processes.[2]

2. Academic Quality

The program was approved by the Senate of Brock University on November 23, 1988.

3. Financial Viability

Brock University indicated that the program was approved by the Board of Trustees on February 28, 1989 without qualification and for an indefinite period.

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1. Brock University, Submission to OCUA for Funding Approval of the Health Studies Program, July 31, 1990, Appendix A.

2. Ibid.

4. Projected Enrolment

Brock University initially admitted seven students to the program in 1989-90. This number increased to ten students admitted in 1990-91. The program will achieve a steady-state admission level of 25 students per year in 1993-94 and a projected total steady-state enrolment of 65 students.

5. Co-operation with other Post-secondary Institutions

No co-operation with other post-secondary institutions is anticipated.

6. Societal Need and Student Demand

Brock University argues the case regarding the societal need for program graduates in the following way:

> The Program focuses on social issues related to health care, including health maintenance and illness prevention, behavioral factors that contribute to disease, and factors that can positively affect health behaviour. Graduates of the Program would have an appropriate background for employment in various health related fields. For example, municipal and regional health services departments would be interested in hiring graduates, as would national organizations such as the Canadian Diabetes Association, the Canadian Cancer Society, the Canadian Hemophilia Society, and many others. Given the increased emphasis on health lifestyles over the past decade, it seems clear that the societal need for graduates will be long-term and continuing.[3]

Comments from potential employers regarding the societal need for graduates varied. Although many organizations indicated that the program would provide an appropriate background for certain positions, the number of positions available were deemed to be very limited or often filled by volunteers. For example, the Canadian Cancer Society stated:

> The Brock program certainly would provide appropriate training for project managers, and program managers in voluntary health agencies such as the Canadian Cancer Society. We employ staff to support volunteer committees which develop and deliver programs to inform the public about all aspects of cancer control.
>
> While such graduates would be qualified to compete for staff positions in health-related voluntary agencies, the number of jobs is always somewhat limited. Agencies like the Canadian Cancer Society, by definition, depend on volunteer workers. Staff are few in number, and

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[3] Ibid., p. 1, quoting Section 6 Societal Need in its entirety.

> act as a professional resource to enable the agency's work to be accomplished by volunteers.[4]

Other organizations indicated that program graduates would be eligible for consideration for positions within their ranks. However, an element of specialization was preferred or it was noted that graduates from other discipline-based programs would be just as attractive. For example, the Program Coordinator for the LAMP Occupational Health Program stated:

> We would be happy to consider graduates of your Health Studies program for employment at our clinic. We would, however, prefer more specialty in the field of occupational health.[5]

The Addiction Research Foundation indicated that:

> Although the Foundation cannot undertake to endorse the program as such, I can say that we represent a potentially significant employer of graduates with an undergraduate degree in Health Studies. In principle, such graduates would have prospects for a wide variety of positions in our research, development and dissemination activities...Suitable positions might be located at our head office in Toronto or at one of our approximately 30 regional offices across the province. Unfortunately, I cannot give any quantitative estimate of our possible utilization of your graduates, nor can I compare how they might compete with our current sources of recruitment.[6]

The Central Toronto Youth Services organization also indicated that it had a number of positions which "might be filled by graduates of the Health Sciences Program" if "combined with an appropriate level of experience..."[7] Another organization, the Niagara District Health Council, indicated that it had on staff a graduate of the University of Waterloo Honours Health Studies (Pre-Health Professions Option) Bachelor of Science program and that this individual's background provided them with "an excellent understanding of health promotion/disease prevention related issues and principles associated with research design and program evaluation."[8] After carefully reviewing the curriculum of the University of Waterloo's program the Committee is convinced that this program has a much greater science orientation and in fact is intended to provide suitable preparation for entry into medical school and other professional health schools, as well as graduate study in health-related disciplines. The program objectives and curriculum differ markedly from the social science orientation of the Health Studies, BA program proposed by Brock University.

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[4] Letter from Mr. Sam Smart, Director, Human Resources Development, Canadian Cancer Society, National, to Dr. H.V. Nelles, Ontario Council on University Affairs, January 9, 1991.

[5] Letter from Ms. Wendy Pinder, Program Coordinator, LAMP Occupational Health Program, to Dr. D. DiBattista, Brock University, November 28, 1990.

[6] Letter from Dr. Howard D. Cappell, Vice-President, Corporate Planning, Addiction Research Foundation, to Dr. D. DiBattista, Brock University, December 11, 1990.

[7] Letter from Mr. Mike Faye, Executive Director, Central Toronto Youth Services, to Dr. D. DiBattista, Brock University, December 4, 1990.

The Canadian Public Health Association expressed concerns that students entering this program without prior work experience would not graduate with specific employment opportunities for which they would be qualified. The Association noted:

> Students who enter the program directly from high school would, in the opinion of the reviewers, have a difficult time to find employment as there are limited roles for those who do not have a professional designation. If the program were to be clearly identified and marketed as degree completion for graduates of certificate and diploma programs then it would fill a necessary gap in what is available from other educational institutions. The documentation provided indicates that Brock sees it available to both high school graduates and non-degree health professionals.[9]

Although letters in support of the societal need for program graduates were received from the Heart and Stroke Foundation of Ontario, the Ontario Association of Distress Centres, the Distress Centre of St. Catharines and District Inc., the Niagara Health Services Department, the St. Catharines and District Mental Health Association, and the Ontario Head Injury Association, the Academic Advisory Committee notes that these organizations have a limited number of positions available, depend to a large extent on the work of volunteers and that the required qualifications for the positions noted could be met by graduates of such professional programs as Social Work and Nursing or by graduates of a variety of social science or science programs, particularly if a Health Studies option had been part of the program of study. The Canadian Diabetes Association specifically stated that it "is unlikely to be a major source of employment for graduates" of this program.[10]

It is the concern of the Academic Advisory Committee that Health Studies programs such as the one proposed for funding eligibility constitute generalist degrees with no health-care related competence and do not adequately prepare students to find employment in "health-related" areas. Such programs neither form

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8. Letter from Mr. Gary N. Zalot, Executive Director, Niagara District Health Council to Dr. D. DiBattista, Brock University, October 5, 1990.

9. Letter from Mr. Gerald H. Dafoe, Executive Director, Canadian Public Health Association, to Dr. H.V. Nelles, Chairman, Ontario Council on University Affairs, January 16, 1991.

10. Letter from Ms. Charleen Wornell, Chairman, Professional Development Council, Canadian Diabetes Association, to Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, January 22, 1991.

part of a career path within the workforce nor ensure admission to graduate studies. The societal needs which these program graduates could potentially meet could be met by graduates of a variety of other discipline-based and professional undergraduate programs.

This concern is reflected within the comments that the Committee received from the Ministry of Health:

> With the emphasis on community-based care and increased public awareness of health issues, there is likely a demand for individuals with training in health promotion. Therefore we would support the introduction of this kind of worker with the caveat that they are one of many health care workers who can provide this type of service.[11]

The Ontario Council of University Health Sciences of the Council of Ontario Universities declined to comment on the program because they considered it to be "a general education program" and therefore outside of their purview.

The Committee is not satisfied that there exists a specific societal need for graduates of the Health Studies BA program at Brock University that could not be met by graduates of existing programs at a variety of universities within the Ontario university system.

It is the opinion of the Academic Advisory Committee that a specific societal need for the Bachelor of Arts program in Health Studies at Brock University has not been satisfactorily established.

7. Funding Recommendation

As the program does not meet, in the Committee's opinion, all of Council's funding criteria for new undergraduate programs, the Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the General and Honours Bachelor of Arts program in Health Studies at Brock University not be recommended as eligible for counting.*

Academic Advisory Committee
January 25, 1991

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[11] Letter from Pat Baranek, Manager, Health Human Resources Policy, Ministry of Health, November 22, 1990.

Appendix B

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Applied Linguistics (General and Honours BA) Brock University

New Undergraduate Special Program Considered for Funding Eligibility

On July 31, 1990, Brock University submitted the General and Honours Bachelor of Arts program in Applied Linguistics to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) for comment.

Council referred the program, and COU's comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

1. Proposed Curriculum

The General and Honours BA program in Applied Linguistics consists of a core of linguistics courses supplemented by a series of recommended electives that permit concentration in either applied linguistics with an emphasis on language development and use, or on the theoretical aspects of language.[1] Core linguistics courses include Introduction to Second Language Acquisition, Introduction to the Comparative Phonology of English and French, Child Language Acquisition, Psychology of Language, Honours Thesis, Honours Seminar, and Special Topics in Applied Linguistics.

2. Academic Quality

The program was approved by the Senate of Brock University on November 23, 1988.

3. Financial Viability

Brock University indicated that the program was approved by the Board of Trustees on February 28, 1989, without qualification and for an indefinite period.

4. Projected Enrolment

Brock University initially admitted 12 students to the program in 1989-90. This number increased to 15 students admitted in 1990-91 which is the steady-state admission level. The steady-state total enrolment level of 45 students is projected to be achieved in 1993-94.

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[1] Brock University, Submission to OCUA for Funding Approval of the Applied Linguistics Program, July 31, 1990, Appendix A.

5. Co-operation with other Post-secondary Institutions

No co-operation with other post-secondary institutions is anticipated.

6. Societal Need and Student Demand

Brock University indicates that the Applied Linguistics program is "a pre-professional training program for students who wish to pursue a career in Speech-Language Pathology/Audiology (SLPA)".[2] The University states that the program proposed for funding eligibility is a "feeder" degree for the seven existing graduate SLPA programs in Canada. The University also notes that:

> Since SPLA practitioners must hold the MA in order to practice in Canada, our Applied Linguistics Program is tailored for those who wish to pursue graduate studies.[3]

Although the program was proposed primarily to provide graduates with entry to the degree of practice, Brock University indicates that graduates may also seek employment in the fields of early childhood education, language teaching, translation or health sciences.[4]

The University indicated that it contacted directors of the Canadian and Ontario Associations of Speech-Language Pathologists/Audiologists and well as a number of local speech Pathologists who indicated that they were

> strongly in favour of University programs which prepare students for careers in their fields. They noted...that there is a steady demand for Speech-Language Pathologists and Audiologists and, particularly in the Niagara area, no opportunity for BA-level training in the fields.[5]

The University also stated:

> The need for undergraduate preparation in Language Pathology is apparent to most jurisdictions in the English-speaking world. Moreover, the University's reading program in language pathology, after which the Applied Linguistics degree at Brock is modelled, prepares students for

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[2] Brock University, Response to OCUA Request for Additional Information, January 8, 1991, p. 1.

[3] Ibid.

[4] Ibid.

[5] Ibid.

> work in the field upon graduation at the honours BA level. There is, and will continue into the foreseeable future, a desperate need for qualified language pathologists in Ontario and Canada.[6]

However, the Academic Advisory Committee believes that the evidence used to make the case for societal need is in fact evidence substantiating the societal need for additional master's-level programs to train Speech Pathologists and Audiologists and not evidence of societal need for an additional undergraduate program in this field.

Letters provided by Brock University in support of the need for the Applied Linguistics program clearly cite the need for more speech-language pathologists and audiologists. Speech-language pathologists and audiologists require a Master's degree to practice. BA graduates in linguistics are not eligible for professional registration. For example, a Speech Language Pathologist from The Greater Niagara General Hospital of Niagara Falls stated:

> At this point in time more and more students are becoming aware of the great need for Speech Language Pathologists and Audiologists, not only in the province of Ontario, but in our entire country. We are sorrily lacking in qualified professionals to provide these services. Currently in Canada there are only five programs that provide training at the graduate level. These programs are small, consisting of approximately 20 to 25 spaces. Therefore on a yearly basis there are far too few professionals being trained. As a result many positions remain vacant for lengthy periods of time as there are not enough professionals to fill them. Ontario is currently facing a 15% shortage of Speech Language Pathologists and Audiologists.[7]

Similar sentiments were expressed by the Manager of the Children's Developmental Assessment Service of the Hotel Dieu Hospital of St. Catharines:

> As a children's program within a hospital we have experienced much difficulty in recruiting speech pathologists and occupational therapists. Our experience with these professionals is not unique. Ontario not only has a shortage of these professionals but Regional Niagara agencies have had a particular problem in attracting these positions.[8]

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[6] Brock University, Submission to OCUA for Funding Approval of the Applied Linguistics Program, July 31, 1990, p. 2.

[7] Letter from Ms. Anna M. Mascitelli, Speech Language Pathologist, The Greater Niagara General Hospital, to Dean Irons, Brock University, November 5, 1990.

[8] Letter from Mr. Mike Chupik, Manager, Children's Developmental Assessment Service, Hotel Dieu Hospital, St. Catharines, to Dr. G. Irons, Brock University, November 13, 1990.

Examples of employment opportunities provided by Brock University further reinforced the Committee's belief that the need in this area is for Speech Pathologists and Audiologists who are eligible for membership in the Canadian or provincial association of speech-language pathologists and not for graduates of bachelor-level programs in applied linguistics.[9]

The Committee also found that, contrary to the University's claim that the Ontario professional association was strongly in favour of the proposed program, the Ontario Association of Speech-Language Pathologists and Audiologists indicated to the Committee that:

> Most employment settings require as a minimum, a Master's degree in Speech-Language Pathology, in order to provide speech-language services. With the exception of the undergraduate degree from the Program in Communicative Disorders, at the University of Western Ontario, which is now almost completely phased out, our Association has endorsed the Master's degree as the entry level for practising speech-language pathologists. In fact, as of the end of 1991, only speech-language pathologists with Master's degrees in Speech-Language Pathology will be eligible for registration with our Association...Although graduates from the proposed Applied Linguistics Program might potentially be excellent candidates for graduate Programs in Speech-Language Pathology, this preparation alone would not provide them with the necessary knowledge base and skills required of practising Speech-Language Pathologists.
>
> ...there is agreement that there is a "desperate need for qualified speech-language pathologists in Ontario and Canada" but I am extremely concerned that this particular proposal is suggesting that it can be alleviated by their students "upon graduation". This claim is particularly misleading and could result in considerable frustration and disappointment for those graduates not willing to pursue Masters' degrees.[10]

As indicated by the Ontario Association of Speech-Language Pathologists and Audiologists, the University of Western Ontario has just closed its undergraduate program in Communication Disorders, which Brock University indicates is "somewhat similar" to its Applied Linguistics program.[11] The Committee confirmed with the University of Western Ontario that its undergraduate program has been closed due to the recent change in professional registration requirements which stipulate the Master's-level degree in Speech Pathology and Audiology as the degree of practice.[12]

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[9] Brock University, Response to OCUA Request for Additional Information, January 8, 1991, Appendices of Employment Opportunities.

[10] Letter from Ms. Donna L. Bandur, President, Ontario Association of Speech-Language Pathologists and Audiologists to Dr. H.V. Nelles, Chairman, Ontario Council on University Affairs, January 24, 1991.

[11] Brock University, Response to OCUA Request for Additional Information, January 8, 1991, p. 2.

The University of Western Ontario indicated that there has long been an excess of applicants for its Master's program relative to the number of places available. The University admits 45 students into its Master's program each year. Applicants have undergraduate backgrounds in linguistics, psychology, pure and applied science and the liberal arts. Up to 45 students are accepted each year into the University's Pre-professional Year program.[13] The University of Western Ontario indicates that graduates of the Applied Linguistics program at Brock University would not qualify for direct admission to its master's program and that although Brock University's graduates "would likely be given advanced standing in one or two courses in the preparatory program" they "would be required to complete our preparatory year program prior to entry into a master's program."[14]

The only other masters program in speech-language pathology and audiology in Ontario is offered at the University of Toronto. Application and admission statistics provided by the University's Department of Speech-Language Pathology and Audiology indicated that there already exists a large pool of highly qualified applicants from which the master's program draws its students. The University of Toronto indicated that on average, of the 190 applications received per year, 160 students are considered qualified and 20 students are accepted into the program. One fifth of all students admitted have an undergraduate degree in linguistics. The remainder of those accepted come predominantly from undergraduate programs in psychology, medicine, kinesiology, neurosciences and a variety of basic and applied science programs.[15]

The Committee notes that undergraduate programs in theoretical/applied linguistics already exist at Carleton, Ottawa, Queen's, and Toronto universities.

The Academic Advisory Committee concludes that there is a strong societal need for additional master's-level programs in speech-language pathology and audiology in Ontario. However, there is no evidence of societal need for additional undergraduate programs in Applied Linguistics.

It is the opinion of the Academic Advisory Committee that the societal need for the General and Honours Bachelor of Arts program in Applied Linguistics at Brock University has not been satisfactorily established.

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12. Memorandum from Dr. J. A. Corcoran, Chairman, Graduate Studies Committee, Department of Communicative Disorders, University of Western Ontario to Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, January 30, 1991.

13. Ibid.

14. Letter from Dr. John C. Booth, Acting Graduate Chair, Department of Communicative Disorders, The University of Western Ontario to Dr. G. Irons, Brock University, September 14, 1990.

15. Memorandum from Dr. P. Square-Storer, Chairman, Graduate Department of Speech Pathology, University of Toronto to Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, January 30, 1991.

7. Funding Recommendation

As the program does not meet, in the Committee's opinion, all of Council's funding criteria for new undergraduate programs, the Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the General and Honours Bachelor of Arts program in Applied Linguistics at Brock University not be recommended as eligible for counting.*

Academic Advisory Committee
January 25, 1991

Appendix C

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Bachelor of Social Wo[illegible]SW)
Carleton University

New Undergraduate Quasi-Professional Program Considered for Funding Eligibility

On July 31, 1990, Carleton University submitted the new undergraduate quasi-professional Bachelor of Social Work (BSW) program to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) for comment. Council referred the program, and COU's comments to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

1. Proposed Curriculum

The proposed Bachelor of Social Work program is a four-year program combining liberal arts education with professional preparation. The primary objective of the program is "to provide students with the knowledge and skills necessary to begin entry level practice in social work."[1]

2. Academic Quality

The program was approved by the Senate of Carleton University on July 26, 1990.

3. Financial Viability

The program was approved by the Board of Governors on October 2, 1990.

4. Projected Enrolment

In its first year of implementation Carleton University intends to admit 100 students into the BSW program. Fifty of these students will enter first year and fifty students, with advanced standing, will enter second year. A steady-state enrolment level of 200 students is expected to be reached in 1993-94.

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[1] Carleton University, Submission to OCUA for a Bachelor of Social Work Honours Program, July 1990, p. 9.

5. Co-operation With Other Post-Secondary Institutions

The Carleton School of Social Work has a history of association with Algonquin College which offers a two-year Social Service Worker program. Carleton University has engaged in, and plans to continue, on-going consultation with Algonquin College to ensure that graduates of the Algonquin diploma program find the proposed BSW degree program accessible and relevant for continuing their study of social work. Furthermore, course equivalency standards have been established by Carleton University for Social Service Worker diploma graduates and those individuals who have gained work experience in the social work field who plan to enter the BSW program.

6. Societal Need and Student Demand

Carleton University notes that no Bachelor of Social Work program is currently offered in Eastern Ontario. The closest English language BSW programs operate at Ryerson Polytechnical Institute, and at Laurentian and York Universities.

Since 1975, numerous agencies in the Ottawa-Carleton area have asked Carleton University to establish a BSW degree program. The Ottawa-Carleton Children's Aid Society (CAS) found the need for graduates so urgent that it contracted York University to offer BSW classes to its employees.

Carleton University considered the possibility of BSW job market saturation resulting from the entry of its fifty BSW graduates a year into the job market. However, the Carleton School of Social Work Study findings and Statistics Canada data suggest that a combination of high growth areas in the number of positions for social workers and on-going staff turnover will ensure a sufficient number of jobs for the additional BSW graduates being produced by the proposed program at Carleton.[2]

The Social Work Study also indicates that there is a strong interest in the program by potential students. The University argues that human service workers and others wanting to work toward a BSW have been unable to take the necessary courses to complete a BSW. Accordingly, when surveyed, 87% of social service workers in the region indicated that they would be interested in pursuing a BSW degree at Carleton University.

The Academic Advisory Committee is satisfied that there is sufficient student demand and societal need for the proposed BSW program.

7. Uniqueness

Carleton University asserts that the proposed program is "innovative in its approach to social work practice".[3] Wilfrid Laurier University views the proposed BSW program as unique for the following reasons:

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[2] Booker, D.W., Project Consultant, Anak Pawis Consulting Ltd., BSW Task Force Feasibility Study, Final Report, May 13, 1989, pp. 11-19.

[3] Carleton University, Submission to OCUA for A Bachelor of Social Work Honours Program, July 1990, p. 3.

> Based on the structural approach, the curriculum emphasizes gender, ethnicity, and race which are emerging as important issues in social work theory and practice. There appears to be a good balance between micro and macro areas of social work practice in the curriculum.[4]

In an effort to increase accessibility for disadvantaged groups, Carleton University's School of Social Work has an Affirmative Action Admission policy for persons of aboriginal, racial, cultural and/or ethnic minority origin, disabled persons, and persons who themselves have been dependent on government assistance. This policy will apply to the new BSW program as well as the existing MSW program.

Other BSW programs exist at Ryerson Polytechnical Institute, and at Lakehead, Laurentian, McMaster, Windsor, Western, and York Universities. The Committee is not convinced that Carleton University's proposed BSW program is unique. However, the Academic Advisory Committee is satisfied that any duplication in program offerings is justified by the regional need in the Ottawa-Carleton area for a BSW program.

8. Local and Regional Support for the Program

The initiative for the development of a BSW program originated at the Ottawa-Carleton Children's Aid Society (CAS). A recent change to the minimum hiring requirement at the CAS has made a BSW credential necessary for human service employees. Because the CAS is one of the largest employers of social workers in the area, this required change has had a tremendous effect on the local social worker pool. Specifically, in 1990 there was a need created for 100 BSWs at the Ottawa-Carleton CAS. Carleton University's BSW program responds to this local and regional need by proposing to graduate 50 BSW students per year commencing in 1993-94. Similarly, the Regional Municipality of Ottawa-Carleton's Social Services Department has experienced increased demand for social assistance and personal support services . As a result they have indicated that their organization "enthusiastically endorses the development of the BSW program at Carleton".[5]

Letters of support from the Ministry of Community and Social Services, the Canadian Association of Social Work, the Children's Aid Society of Ottawa-Carleton, the Regional Municipality of Ottawa-Carleton, and Algonquin College demonstrated to the Committee that within the social work field there is strong local and regional support for this program. The Council of Ontario Universities' comments also indicated that of the eight institutions that responded, none had any concerns or objections to the proposed program.

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[4] Letter from Dr. Donald N. Baker, Vice-President Academic, Wilfrid Laurier University, to Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, November 8, 1990.

[5] Letter from Dick Stewart, Executive Director, Program Delivery, Regional Municipality of Ottawa-Carleton, Social Services, to Dr. Colleen Landry, Chair, Curriculum Committee, Carleton University, January 31, 1990.

9. Institutional Appropriateness

Carleton University currently offers a Master's in Social Work degree program which has been in place since 1949. The presence of this program since 1949 has given Carleton University the opportunity to develop a "fruitful relationship" with a wide range of social work related agencies and individuals in the community.[6] As Wilfrid Laurier University notes "the support provided by the field agencies is crucial to the ultimate success of the program."[7] Furthermore, the Centre for Social Welfare Studies, established at Carleton University in 1975, provides technical and administrative support for Social Work faculty and students.

The Committee is convinced that Social Work is an area of existing strength at Carleton University and therefore is satisfied that the proposed BSW program is an appropriate development at Carleton University.

10. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Honours Bachelor of Social Work program at Carleton University be recommended as eligible for counting.*

Academic Advisory Committee
December 12, 1990

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[6] Carleton University, op.cit., p. 1.

[7] Letter from Dr. Donald N. Baker, Vice-President Academic, Wilfrid Laurier University, to Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, November 8, 1990.

Appendix D

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Agronomy Major (BSc Agr)
University of Guelph

New Undergraduate Professional Program Considered for Funding Eligibility

On July 25, 1990, the University of Guelph submitted the new Bachelor of Science (Agriculture) program in Agronomy to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) for comment.

Council referred the program, and COU's comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

1. Proposed Curriculum

The proposed program will provide training for students wishing to pursue careers demanding technical and professional competency in food and feed production as they relate to crop and soil management.[1] Agronomists are plant production specialists who combine expertise in soils, crops, economics and land use to advise, consult and conduct research on plant production practices.

The program emphasizes fundamental biological and physical sciences in the first two years, and agricultural sciences such as crop and soil sciences in the last two years. Courses in economics, animal science and pest control will be recommended. Students may specialize in Crop Science, Soil Science or General Agronomy.

The proposed program is a result of the unification of two previously existing programs in Soil Science and Crop Science which had been in place since 1965. The new program is based on existing courses previously offered within the former programs in Soil and Crop Science.

2. Academic Quality

The program was approved by the Senate of the University of Guelph on June 19, 1990.

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[1] University of Guelph, New Submission to OCUA, July 25, 1990, p. 1.

3. Financial Viability

The University of Guelph has assured Council that the resources and faculty necessary to support the program on a long-term basis are already in place. Board of Governors' approval was not required.

4. Projected Enrolment

The University projects an initial enrolment in the program of 20 students in 1992, increasing to a steady-state enrolment of 30 students by 1996.

5. Co-operation with other Post-secondary Institutions

Due to the University of Guelph's special responsibility for agricultural science within the Ontario university system, no co-operation with other post-secondary institutions is planned.

6. Societal Need and Student Demand

The proposed Bachelor of Science (Agriculture) program in Agronomy will better meet a need for graduates with an integrated knowledge of crop and soil science than the two smaller programs previously offered. Program graduates will meet the existing need for 20 to 25 Soil and Crop Science graduates annually. This demand comes primarily from the agrifood industry, and government agencies within the Province of Ontario.[2]

The University of Guelph notes that The Ontario Institute of Agrologists reviewed the curriculum and endorsed the Agronomy Major as a replacement for the existing majors in Soil Science and Crop Science.[3]

Student demand for the two former programs is expected to be transferred to the new program. The University of Guelph projects that as the agrifood sector completes an ongoing phase of consolidation, and transition to larger but fewer commercially viable production units, the societal need for graduates will increase. The University, therefore, anticipates a modest increase in student demand for the program over the next five years.

The Academic Advisory Committee is satisfied that the proposed program will meet a need previously met by two independent programs and that student demand will be sufficient to meet projected enrolment levels and the societal need for graduates.

7. Uniqueness

This program would be unique in Ontario.

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[2] Ibid., p. 3.

[3] Ibid.

8. Local and Regional Support for the Program

The University of Guelph notes that there is strong support within the agrifood sector in Ontario for the integration of Soil Science and Crop Science undergraduate education since there is a need for graduates with an integrated approach to all aspects of plant production. The establishment of the program is supported by major corporate employers, the Ontario Ministry of Agriculture and Food, the Fertilizer Institute of Agrologists, and the Agricultural Institute of Canada.

The Council of Ontario Universities reviewed the program and there were no concerns or objections registered.

9. Institutional Appropriateness

The development of the proposed program is consistent with the University of Guelph's special responsibility for agricultural education and research in Ontario.

The program is based on existing strength in Crop, Soil and Land Resource Science at the University of Guelph from the undergraduate through to doctoral level.

Related University endeavours supporting the program include the Centre for Plant Biotechnology, the Ontario Institute of Pedology and the Centre for Soil and Water Conservation.

The Academic Advisory Committee is satisfied that this program is an appropriate development at the University of Guelph.

10. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Bachelor of Science (Agriculture) program in Agronomy at the University of Guelph be recommended as eligible for counting.*

Academic Advisory Committee
December 12, 1990

Appendix E

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Food and Dairy Science (Specialized Honours BSc) University of Guelph

New Undergraduate Professional Program Considered for Funding Eligibility

On July 25, 1990, the University of Guelph submitted the new Specialized Honours Bachelor of Science program in Food and Dairy Science to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) for comment.

Council referred the program, and COU's comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

1. Proposed Curriculum

The proposed program is a result of modifications to a former BSc (Agr) program in Dairy Science and Technology. The proposed program offers a greater emphasis on basic sciences. The integrated curriculum provides for an understanding of the role, principles, and application of Dairy Science within the broader context of the fundamental and applied aspects of food science.[1] The program will produce students with an ability to identify, evaluate, and solve problems in a scientific and practical manner.[2]

2. Academic Quality

The program was approved by the Senate of the University of Guelph on June 20, 1989.

3. Financial Viability

The University of Guelph has assured Council that the resources and faculty necessary to support the program on a long-term basis are already in place. Board of Governors' approval was not required.

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[1] University of Guelph, New Program Submission to OCUA for Full Review, July 25, 1990, p. 1.

[2] Ibid.

4. Projected Enrolment

The University projects an initial enrolment in the program of 22 students in 1991, increasing to a steady-state enrolment level of 40 students by 1995.

5. Co-operation with other Post-secondary Institutions

Due to the University of Guelph's special responsibility for agricultural science within the Ontario university system, no co-operation with other post-secondary institutions is planned.

6. Societal Need and Student Demand

The proposed Specialized Honours Bachelor of Science program in Food and Dairy Science will meet the need for professionals with unique technical skills within the dairy and food industry, government agencies and to a lesser extent, the field of education. The new program is consistent with the practical expectations of the dairy industry, and with the need to pursue all aspects of dairy technology, including that of the food industry generally, within the context of an education grounded in the basic sciences.

Letters from potential employers indicate that graduates will be employed in the fields of dairy inspection and grading as well as in the development of legislation and research.

The Committee received numerous letters from representatives of the dairy industry which indicated that graduates of the proposed program were in high demand by employers and were much needed to sustain the industry into the twentieth century. The Ontario Dairy Council made one of the most comprehensive arguments in support of the societal need for graduates, stating:

> ...on behalf of all the dairy processing, marketing and distributing member companies of the O.D.C. [Ontario Dairy Council], I would like to report..., that the Dairy Sciences graduates, and thus the program, are of the utmost importance to our industry. Dairy companies rely heavily on the resources at the University of Guelph for the development of an outstanding pool of manpower. While graduates are hired by many of the dairy processing companies in Ontario, the significance of the Guelph program is felt all across this country. Dairy graduates from Guelph are found in all the large dairy processing companies in Canada with many rising to the Chief Executive Officer level as well as senior management positions...
>
> The Canadian dairy industry is under a great deal of pressure these days and for the industry to survive, depends on many factors, not the least of which is a well-educated, specialized employment pool. The University of Guelph has continuously demonstrated its commitment to the dairy industry over many years. The changes to the program that

> have been proposed...are just another example of how the University is attempting to continue that commitment.[3]

The Academic Advisory Committee also reviewed letters substantiating the societal need for graduates from the International Dairy Federation, the Dairy Farmers of Canada, The Ontario Milk Marketing Board, The Canadian Dairy Commission, Neilson Dairy, Agriculture Canada, the Ontario Ministry of Agriculture and Food, McCain Refrigerated Foods Inc., and Gay Lea Foods. It is clear that the industry is very conscious of the scarcity of trained dairy science personnel, and endorses the proposed program in order to increase the number of graduates.

The University indicates that 81 graduates of the former program found positions within the dairy industry, however, an additional 38 positions requiring graduates trained in dairy science went unfilled.

The University of Guelph expects that the new program will attract more students than the previous program because it will draw from the pool of high school students interested in a BSc degree. The University indicates that BSc enrolments are currently at record high levels and expects that they will have no difficulty attracting the targetted number of students to the proposed program.

The Academic Advisory Committee is satisfied that the proposed program will meet a long-term societal need and that student demand will be sufficient to meet projected enrolment levels and the societal need for graduates.

7. Uniqueness

This program would be unique in Ontario.

8. Local and Regional Support for the Program

Support for the program is extremely strong from representatives of government and the dairy industry across Canada. Letters from industry representatives indicate that they have recently funded two chairs in dairy science, one in Dairy Microbiology and the other in Dairy Technology. This represents a financial commitment of $2.45 million over a ten year period.[4]

The Council of Ontario Universities reviewed the program and there were no concerns or objections registered.

9. Institutional Appropriateness

The development of the proposed program is consistent with the University of Guelph's special responsibility for and existing strength in agricultural education and research in Ontario and specifically with the University's century old involvement in the teaching of dairy science. The University has developed close links with industry and is strongly supported financially from this source.

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[3] Letter from Mr. Thomas D. Kane, C.A.E., President, Ontario Dairy Council, to Dr. H.V. Nelles, Chairman, Ontario Council on University Affairs, December 3, 1990.

[4] Letters from Mr. John Core, Chairman of the Board, The Ontario Milk Marketing Board, and from Mr. Thomas D. Kane, C.A.E., President, Ontario Dairy Council to Dr. H.V. Nelles, Chairman, Ontario Council on University Affairs, November 29 and December 3, 1990 respectively.

The Academic Advisory Committee is satisfied that this program is an appropriate development at the University of Guelph.

10. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Specialized Honours Bachelor of Science program in Food and Dairy Science at the University of Guelph be recommended as eligible for counting.*

Academic Advisory Committee
December 12, 1990

Appendix F

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Fine Arts (Honours BFA)
Lakehead University

New Undergraduate Quasi-professional Program Considered for Funding Eligibility

(Cursory Review)

On August 21, 1990, Lakehead University submitted its new undergraduate, quasi-professional Honours Bachelor's program in Fine Arts (BFA) for funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) for comment. Council referred the program, and COU's comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

The proposed Bachelor of Fine Arts program results from a change in name of the existing Honours Bachelor of Arts program in Visual Arts. Course content will not be affected by the proposed change in program name.

The University argues that the rationale for the change in degree name is based on the manner in which the program has evolved over the years and the recent creation of an independent Department of Fine Arts. Over the years, the program has become more applied and is housed in a newly acquired building which provides suitable studio space in support of drawing, painting, printmaking, sculpture, and ceramics courses.

The University does not expect that the name change will have any impact on current enrolment levels.

The proposed change in degree name was approved by the Senate of Lakehead University on January 22, 1990.

The majority of COU comments indicated that there were no concerns about the proposed modification. However, two comments expressed concerns regarding the Art History component of the program. Additional information provided by Lakehead University indicated that there were four required full courses in Art History in the program, one per year, and that this was not inconsistent with other university fine art programs in Ontario.[1]

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[1] Letter from Dr. Robert G. Rosehart, President, Lakehead University, to Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, December 5, 1990.

The Academic Advisory Committee is satisfied that the request for a change in program degree name from Honours Bachelor of Arts (Visual Arts) to Honours Bachelor of Fine Arts at Lakehead University is reasonable and justifiable.

Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Honours Bachelor of Fine Arts program at Lakehead University be recommended as eligible for counting.*

Academic Advisory Committee
December 12, 1990

Appendix G

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Music (Honours BMus)
Lakehead University

New Undergraduate Quasi-professional Program Considered for Funding Eligibility

(Cursory Review)

On August 21, 1990, Lakehead University submitted its new undergraduate, quasi-professional Honours Bachelor's program in Music (BMus) for funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) for comment. Council referred the program, and COU's comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

The proposed Bachelor of Music program is based upon over 75% of the courses which currently exist within the University's Honours Bachelor of Arts program in Music. Additional music performance courses will become a required part of the proposed program and courses in music literature and 20th century music history have been added. Modifications do not constitute greater than 25% of the existing program.

The proposed program will meet a need for an applied music program in northwestern Ontario. Lakehead University notes that:

> ...universities in closest proximity to Thunder Bay currently offering four-year music degrees (as opposed to arts degrees with a major in music) are the University of Manitoba, 685 kilometres to the west and the University of Toronto, 1375 kilometres to the southeast.[1]

Lakehead University notes that although many students travel to these centres and elsewhere to pursue applied music study, the students seldom return to northwestern Ontario, and this has contributed to the chronic shortage of adequately trained music teachers, choir directors, church organists and accompanists in the region.

The University indicates that the Honours Bachelor of Arts program in Music will be maintained in order to continue meeting the demand of students wishing to use the program as preparation for a teaching degree. However, the proposed program will meet a student demand from those wishing to pursue a professional career in music or to pursue graduate studies.

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[1] Lakehead University, Request For Cursory Review, Honours Bachelor of Music Program, August 21, 1990, p. 1.

The University projects that the proposed program will attract 10 additional Full-Time Equivalent (FTE) students to the Music department over the next five years. Enrolment in the proposed program began in the Fall of 1990.[2]

The proposed program was approved by the Senate of Lakehead University on January 22, 1990.

The majority of COU comments indicated that there were no concerns about the proposed modification. Although some institutions indicated that there was some capacity in existing programs, the regional nature of the societal need and student demand led COU members to conclude that there would be virtually no detrimental impact on existing Bachelor of Music programs elsewhere. Additional information provided by Lakehead University indicated that ninety percent of their student body originates from Thunder Bay and only 6.7% come from outside northwestern Ontario.[3]

The Committee is satisfied that the proposed program would respond to regional societal needs and student demand, and that the modest increase in enrolment projected for the program does not pose a threat to any existing program elsewhere in the university system.

The Academic Advisory Committee believes that the request for an Honours Bachelor of Music program, which is based primarily upon courses already available at Lakehead University, is reasonable and justifiable.

Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Honours Bachelor of Music program at Lakehead University be recommended as eligible for counting.*

Academic Advisory Committee
December 12, 1990

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[2] Ibid.

[3] Letter from Dr. Robert Rosehart, President, Lakehead University, to Dr. H.V. Nelles, Chairman, Ontario Council on University Affairs, December 11, 1990, pp. 1-2.

Appendix H

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Pharmacy (BSc) Laurentian University

New Undergraduate Professional Program Considered for Funding Eligibility

On February 10, 1989, Laurentian University submitted the Bachelor of Science program in Pharmacy to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) and to the Ministry of Health for review and comment.

Council referred the program, and external comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

At the time that the Academic Advisory Committee was referred this program for a recommendation for funding eligibility, the Ministry of Health was engaged in an extensive inquiry into matters pertaining to the pharmaceutical industry in Ontario. By Order-in-Council of May 26, 1988, an eight member commission was established, chaired by Dr. Frederick Lowy, and entitled the Pharmaceutical Inquiry of Ontario. The commissioners were appointed to examine all matters pertaining to the acquisition, distribution, prescribing, dispensing and use of prescription drugs in Ontario.[1]

Upon initial circulation of this program to the Ministry of Health for comment in 1989, the Committee was told that the Ministry was not in a position to respond until the Pharmaceutical Inquiry of Ontario had completed its report, since the report was expected to contain recommendations regarding post-secondary level pharmaceutical education.

The Committee then deferred its consideration of this program until such time as the report of the Pharmaceutical Inquiry was available and the Committee had the opportunity to review the recommendations pertaining to post-secondary level pharmaceutical education.

In the report, which was released in July 1990, the Pharmaceutical Inquiry of Ontario stated that:

> What is clear to the Inquiry is that at present, Ontario suffers from a shortage of pharmacists with an adequate clinical orientation. It is our opinion that this shortage can best be addressed through training

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[1] Prescriptions for Health, Report of the Pharmaceutical Inquiry of Ontario, July 1990, p. i.

> additional pharmacists within our own province...The Committee strongly supports the establishment of a second Ontario faculty of pharmacy.[2]

The Pharmaceutical Inquiry also indicated that there were certain basic corollary strengths which the host university of Ontario's second faculty of pharmacy would require:

> The Committee is persuaded that the study of pharmacy is best undertaken in association with the facilities of a medical school and, mindful of needs and opportunities for education in northern Ontario, supports the establishment of a second faculty of pharmacy at a northern Ontario university, provided a health science program that includes a faculty of medicine is established there. If this is not likely during the next three years, a second faculty of pharmacy should be established at an Ontario university that already has a faculty of medicine.[3]

The Pharmaceutical Inquiry also indicated that enrolment levels at the University of Toronto, where the only Bsc program in Pharmacy is offered in Ontario, exceed the enrolment levels for which it was designed by approximately 30%. In light of the forgoing, the Pharmaceutical Inquiry formally recommended the following:

> 8.22 The Committee therefore recommends that, by the 1992 academic year, the Ministry of Colleges and Universities establish a second faculty of pharmacy in Ontario, with an enrolment approximating the reduced level of the Toronto faculty. This should be a five year program similar to that recommended for the University of Toronto..., established at an Ontario university that has a health sciences program which includes medicine. The decision to establish this faculty should take into consideration the need for such services in northern Ontario, but the Committee believes the advantages of having faculties of both medicine and pharmacy at the same location outweigh geographic concerns.[4]

The Academic Advisory Committee reviewed the proposed BSc program in Pharmacy proposed by Laurentian University first for consistency with the recommendations of the Pharmaceutical Inquiry of Ontario. The Committee notes that Laurentian University has a School of Nursing which offers a Bachelor of Science in Nursing degree (BScN) however it has neither a Faculty of Health Sciences nor a Faculty of Medicine.

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[2] Ibid., p. 129.

[3] Ibid., pp. 129-130.

[4] Ibid., p. 130.

For these reasons the Committee did not believe that Laurentian University possessed the necessary corollary strengths to meet the basic requirements of host to a second faculty of pharmacy in Ontario as set out in the Report of the Pharmaceutical Inquiry of Ontario. The program was, from the outset, also considered by the Committee unable to pass Council's criteria of Institutional Appropriateness. Therefore, the Academic Advisory Committee considered this program ineligible for further review for funding eligibility.

Funding Recommendation

As the program does not meet, in the Committee's opinion, all of Council's funding criteria for new undergraduate programs, the Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Bachelor of Science program in Pharmacy at Laurentian University not be recommended as eligible for counting.*

Academic Advisory Committee
November 23, 1990

Appendix I

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Civil Engineering and Society, BEng(Soc) McMaster University

New Undergraduate Professional Program Considered for Funding Eligibility

(Cursory Review)

On July 31, 1990, McMaster University submitted the new professional undergraduate Civil Engineering and Society, BEng(Soc), program to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) which in turn forwarded the program to the Committee of Ontario Deans of Engineering (CODE) for comment.

Council referred the program, and COU's comments to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

The Academic Advisory Committee notes that McMaster University currently offers a four-year Civil Engineering program, a five-year Civil Engineering and Management program, and a five-year Civil Engineering and Computer Systems program. Furthermore, it is noted that the proposed Bachelor of Engineering and Society (BEng [Soc]) program also follows McMaster University's engineering and management model in that it is five years in duration.

This five-year program is unique to North America in that students obtain the full civil engineering program required by the Canadian Engineering Accreditation Board (CEAB), plus an additional set of complementary courses in the fields of Engineering Economics, Technology in the Society, and Communication Skills. The additional year of study provides for significantly more liberal-education content than is found in other engineering programs.

The objective of the proposed program is "to produce engineers who are not only technically competent in their chosen field, but also have a better understanding of the interaction of their profession and society."[1]

McMaster University indicates that the engineering profession recognizes a changing set of needs for society and new demands by students and employers.

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[1] McMaster University, Request for Funding Eligibility: Civil Engineering and Society, July 31, 1990, p.3.

The University feels that this program responds to these changing needs. A representative of the University of Toronto substantiated this claim:

> I think the program is a really important extension of the spectrum of engineering education in Ontario: such an offering responds well to the changing needs of engineering students and their employers.[2]

Comments from the Stelco Technology Centre reinforced the importance of such a program to the private sector which employs program graduates:

> We need engineers who are not only technically competent, but who also have a fundamental understanding of the human, social, and environmental concepts and frameworks. The decisions and value judgements of the future must be made with a balanced understanding of the important facets involved.[3]

The proposed program received Senate approval on June 3, 1990. McMaster University indicated that the program will be offered without any additional demands being placed on the central University budget. External funding or adjustment of internal resources will cover the additional costs of offering the program. Financial viability of the program has therefore been guaranteed.

The program was endorsed by COU and CODE.

The Academic Advisory Committee is satisfied that the program primarily involves the repackaging of existing courses, and that McMaster University's request for funding eligibility is reasonable and justifiable.

Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Civil Engineering and Society program at McMaster University be recommended as eligible for counting.*

Academic Advisory Committee
October 26, 1990

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[2] Letter from Ursula M. Franklin, Professor Emerita, University of Toronto, to Professor M.A. Dokainish, Associate Dean, Faculty of Engineering, McMaster University, November 29, 1990.

[3] Letter from Leslie C. McLean, President, Stelco Technical Services Limited to Professor M.A. Dokainish, Associate Dean, McMaster University, Faculty of Engineering, November 28, 1990.

Appendix J

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Japanese Studies (Combined Honours BA) McMaster University

New Special Undergraduate Program Submitted for Funding Eligibility

(Cursory Review)

On July 31, 1990, McMaster University submitted the new Combined Honours Bachelor of Arts program in Japanese Studies to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposals to the Council of Ontario Universities (COU) for comment.

Council referred the program, and COU's comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

McMaster University's proposed program is a combined rather than a single honours programs and is heavily oriented toward politics, geography, sociology, and history courses. The program is designed to give undergraduate students a solid grounding in the various aspects of modern Japanese society, built around a foundation of four years of compulsory language training.

The proposed program received Senate approval on February 4, 1990. Since the program is interdisciplinary and responsibility for it is shared by two faculties and five established departments, McMaster University argues that the program will draw on the existing resources of established units. Furthermore, most of the courses offered are currently available, therefore, the program will require only limited new resources.

The Academic Advisory Committee notes that McMaster University currently offers Japanese language courses that are popular as a minor with both Humanities and Social Science students. The proposed program would offer students the option of completing a combined honours degree program in a Humanities or Social Science discipline in addition to an honours program in Japanese Studies.

As a minor, Japanese language courses now attract 80-100 students per year. The growth in student interest in the study of Japanese has been rapid. McMaster University asserts that this is a "testimony to student interest and demand."[1] Projected enrolment for the proposed combined honours program suggests that 25

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1. McMaster University, Request for Funding Eligibility: Proposed New Undergraduate Programme–Combined Honours Japanese Studies plus Another Subject, July 31, 1990, p. 2.

students will be accepted into the first year of operation, increasing to a steady-state admission level of 50 students within five years.

Given Canada's Pacific Rim partnerships, the proposed program is consistent with Canada's and Ontario's future economic development needs. McMaster University has indicated that governments, business, industry, higher education, and research and development programs seek personnel with Asian expertise and will be attempting to fill this need for at least the next decade. In the opinion of McMaster University, individuals who have developed Japanese language capabilities and a parallel understanding of modern Japanese civilization through exposure to Japanese history, religion, arts, politics, literature, and economic policy will be best suited to fill the available positions.

COU comments indicated that there were no concerns nor objections to the proposed program.

The Academic Advisory Committee is satisfied that this program is based primarily on existing courses and that McMaster University's request for funding eligibility is reasonable and justifiable.

Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Combined Honours Bachelor of Arts program in Japanese Studies and Another Subject at McMaster University be recommended as eligible for counting.*

Academic Advisory Committee
November 23, 1990

Appendix K

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Human Kinetics (BSc)
University of Ottawa

New Undergraduate Quasi-professional Program Considered for Funding Eligibility

On July 30, 1990, the University of Ottawa submitted the four-year Bachelor of Science program in Human Kinetics to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) for comment.

Council referred the program, and COU's comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

1. Proposed Curriculum

The proposed program is a result of the amalgamation of two previously existing programs in Physical Education (BPE) and Kinanthropology (BSc Kin). Students currently enroled in these two programs will have until 1993-94 to complete their studies in accordance with the requirements of the two original programs. After that time, the two programs will be completely phased out.

The new program in Human Kinetics will be entirely available in English and French. Within the program there are three areas of emphasis - general studies within the basic arts, sciences and humanities, professional courses in human kinetics, including the study of physical education and sport, and elective courses.

2. Academic Quality

The program was approved by the Senate of the University of Ottawa on November 6, 1990.

3. Financial Viability

The University of Ottawa has assured Council of its commitment to the financial viability of the program. Board of Governors' approval was not required because the necessary resources would be reallocated from the two programs to be collapsed into the proposed program.

4. Projected Enrolment

With respect to projected enrolment levels for the new program, the University of Ottawa indicates that it intends to maintain the same level of total enrolment that has been attained within the two former programs. The University indicates that for the past seven years, total enrolment in both departments has averaged 500 students. Admission levels have also been stable at an average of 178 students per year (75 Francophones and 103 Anglophones) since 1983.[1]

Over the four year period 1991 to 1995, the University projects that new admissions will grow only marginally from 183 students in 1991 (80 Francophone and 103 Anglophone) to 195 students (88 Francophone and 107 Anglophone).[2]

5. Co-operation with other Post-secondary Institutions

The University of Ottawa indicated that the School of Human Kinetics is an active participant in the Canadian Council of University Physical Education Administrators as well as the Comité des directeurs d'éducation physique des universités du Québec.

The School of Human Kinetics also cooperates with l'Université du Québec in Hull permitting their students to complete teacher certification requirements within the University of Ottawa program.

Additionally, many fourth year students from the University of Ottawa complete internships at Algonquin College, Heritage College or Collège de l'Outaouais.

There appears to be a significant degree of co-operation between students and faculty involved in the proposed program and other post-secondary institutions in Ontario and Quebec.

6. Societal Need and Student Demand

The amalgamation of two existing programs to create the new BSc program in Human Kinetics was undertaken in response to the changing needs of society with respect to physical activity as a means to maintain health as well as to better reflect recent trends in the professional preparation of specialists in the field of physical activity.

Support for the need for the modified program came from a number of sources including the National Capital Commission which stated:

> We firmly believe that the proposed changes in your degree programme will permit your graduates to achieve an even greater degree of competence and knowledge. Your graduates will be better able to cope with the changing needs of our clients and our services. Physical activity courses related to youth, women, senior citizens, health, social services

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1. University of Ottawa, Bachelor of Science in Human Kinetics, Update to OCUA for Full Review of Curriculum Revisions in the School of Human Kinetics, November 29, 1990, pp. 4-6.

2. Ibid.

> and Canadian lifestyles will definitely give a new and refreshing slant to their professional approach to clients.[3]

The Association Franco-Ontarienne des Educatrices et Educateurs Physiques also indicated its support for the proposed modifications:

> [L'association] accueille favorablement les transformations proposées par l'Ecole des sciences de l'activité physique dans le but d'améliorer la formation des futurs intervenants.
>
> Compte tenu de l'importance que la société accorde à la promotion et à l'éducation à la santé, l'association se réjouit que cet aspect occupe une place plus importante dans le cadre de la formation.
>
> L'association et ses membres offrent donc à l'Ecole des sciences de l'activité physique son entière collaboration pour toute initiative visant l'amélioration des compétences des futurs spécialistes en activité physique.[4]

Program graduates will continue to seek employment opportunities within the fields of a) teaching (45%); b) coaching, administration of sport and physical activity (15%); c) fitness training and exercise prescription, adaptation of movement, and health promotion and education (14%); d) administration other than sports administration (12%); and e) research (4%).[5] Major employers of program graduates include school boards, recreation services, government agencies, sports agencies, clubs, health-related institutions, private enterprises and other agencies. The University notes that one-fourth of the graduates of the two former programs continued studying at the graduate level and that this trend is expected to continue.[6]

Student demand for the program, from both francophone and anglophone students, is expected to continue to be very strong. An average of 880 students per year apply for admission to the School of Human Kinetics, while first year admission is limited to approximately 180 students annually.

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[3] Letter from Mr. Jean-Guy Noel, Director National Capital Events, National Capital Commission, to Professor D. Soucie, University of Ottawa, November 29, 1990.

[4] Letter from Lina Vincent, Présidente, L'Association Franco-Ontarienne des Educatrices et Educateurs Physiques to Professor Daniel Soucie, University of Ottawa, November 22, 1990.

[5] The bracketed percentage indicates the percentage of graduates holding this type of position as determined by a survey of School of Human Kinetics graduates of the University of Ottawa from 1983 to 1988 (n=230). Ten percent of the graduates surveyed held positions classified as "other" types of positions.

[6] University of Ottawa, Bachelor of Science in Human Kinetics, Update to OCUA for Full Review of Curriculum revisions in the School of Human Kinetics, November 29, 1990, p. 9.

The Academic Advisory Committee is satisfied that student demand is sufficient for the University to meet its projected enrolment levels on a long-term basis.

The Committee concludes that there is a demonstrable regional societal need and francophone and anglophone student demand for the proposed program.

7. Uniqueness

The Academic Advisory Committee notes that although similar programs are available at Laurentian, Queen's, Waterloo and Windsor universities, the proposed program at the University of Ottawa will meet regional needs and is unique in that students may study in English or French. The Committee is satisfied that any duplication of existing programs is, therefore, justifiable.

8. Local and Regional Support for the Program

Regional organizations which provided letters in support of the proposed program include the Département de Santé Communautaire - Centre Hospitalier Régional de L'Outaouais, L'Association Franco-Ontarienne des Educatrices et Educateurs Physiques, Franco-forme, and the National Capital Commission.[7]

Comments from the Council of Ontario Universities indicated that there were no objections to the proposed program.

9. Institutional Appropriateness

The proposed program is based upon existing program strengths and resources drawn from two formerly existing programs. It will be housed within the Faculty of Health Sciences. Related strengths at the graduate level include a Master of Physical Education program concentrating in sport administration and a Master of Science in Kinesiology degree in the psychology of sport, exercise physiology, biomechanics and motor learning.

A new Human Kinetics Assessment Centre will serve as a clinical training centre for students in the proposed program, providing them with experience in fitness assessment, sports counselling and biomechanics. The Centre is housed within the new Health and Professional Services Building which is expected to be recognized as a Sports Canada Regional Sports Science Centre and funded by Sports Canada to provide services to regionally "carded" athletes.

The proposed program is consistent with the mandate of the University's School of Human Kinetics and the University's responsibilities regarding the provision of programs responsive to the needs of Franco-Ontarians.

The Academic Advisory Committee believes that the proposed program is an appropriate development at the University of Ottawa.

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[7] Ibid., Appendix 3.

10. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Bachelor of Science program in Human Kinetics at the University of Ottawa be recommended as eligible for counting.*

Academic Advisory Committee
December 12, 1990

Appendix L

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Pharmacy (BSc)
University of Ottawa

New Undergraduate Professional Program Considered for Funding Eligibility

On August 12, 1988, the University of Ottawa submitted the Bachelor of Science program in Pharmacy to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) and to the Ministry of Health for review and comment.

Council referred the program, and external comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

At the time that the Academic Advisory Committee was referred this program for a recommendation for funding eligibility, the Ministry of Health was engaged in an extensive inquiry into matters pertaining to the pharmaceutical industry in Ontario. By Order-in-Council of May 26, 1988, an eight-member commission was established, chaired by Dr. Frederick Lowy, and entitled the Pharmaceutical Inquiry of Ontario. The commissioners were appointed to examine all matters pertaining to the acquisition, distribution, prescribing, dispensing and use of prescription drugs in Ontario.[1]

Upon initial circulation of this program to the Ministry of Health for comment in 1988, the Committee was told that the Ministry was not in a position to respond until the Pharmaceutical Inquiry of Ontario had completed its report, since the report was expected to contain recommendations regarding post-secondary level pharmaceutical education.

The Committee then deferred its consideration of this program until such time as the report of the Pharmaceutical Inquiry was available and the Committee had an opportunity to review the recommendations pertaining to post-secondary level pharmaceutical education.

In the report, which was released in July 1990, the Pharmaceutical Inquiry of Ontario stated that:

> What is clear to the Inquiry is that, at present, Ontario suffers from a shortage of pharmacists with an adequate clinical orientation. It is our opinion that this shortage can best be addressed through training

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[1] Prescriptions for Health, Report of the Pharmaceutical Inquiry of Ontario, July 1990, p. i.

> additional pharmacists within our own province... The Committee strongly supports the establishment of a second Ontario faculty of pharmacy.[2]

The Pharmaceutical Inquiry also indicated that there were certain basic corollary strengths which the home of Ontario's second faculty of pharmacy required:

> The Committee is persuaded that the study of pharmacy is best undertaken in association with the facilities of a medical school and, mindful of needs and opportunities for education in northern Ontario, supports the establishment of a second faculty of pharmacy at a northern Ontario university, provided a health science program that includes a faculty of medicine is established there. If this is not likely during the next three years, a second faculty of pharmacy should be established at an Ontario university that already has a faculty of medicine.[3]

The Pharmaceutical Inquiry also indicated that enrolment levels at the University of Toronto, where the only BSc program in Pharmacy is offered in Ontario, exceed the enrolment levels for which it was designed by approximately 30%. In light of the foregoing, the Pharmaceutical Inquiry formally recommended the following:

> 8.22 The Committee therefore recommends that, by the 1992 academic year, the Ministry of Colleges and Universities establish a second faculty of pharmacy in Ontario, with an enrolment approximating the reduced level of the Toronto faculty. This should be a five-year program similar to that recommended for the University of Toronto..., established at an Ontario university that has a health sciences program which includes medicine. The decision to establish this faculty should take into consideration the need for such services in northern Ontario, but the Committee believes the advantages of having faculties of both medicine and pharmacy at the same location outweigh geographic concerns.[4]

The Academic Advisory Committee reviewed the BSc program in Pharmacy proposed by the University of Ottawa first for consistency with the recommendations of the Pharmaceutical Inquiry of Ontario. The Committee notes that the University of Ottawa has a Faculty of Medicine, and a Faculty of Health Sciences which houses a School of Human Kinetics, a School of Nursing and a program in Occupational Therapy and Physiotherapy.

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[2] Ibid., p. 129.

[3] Ibid., pp. 129-130.

[4] Ibid., p. 130.

The Committee believes that the University of Ottawa possesses the necessary corollary strengths to meet the basic requirements to host a second faculty of pharmacy in Ontario as set out in the Report of the Pharmaceutical Inquiry of Ontario. The program was, therefore, reviewed by the Committee for its ability to pass Council's funding criteria.

1. Proposed Curriculum

The proposed Bachelor of Science program in Pharmacy is a five-year, bilingual program characterized by a strong clinical component. The first year of the program involves a year of pre-pharmacy studies corresponding in large part to the first year of a Bachelor of Science program. The remaining four years of the program are characterized by courses in communications, patient counselling, therapeutics, drug information, pathopsychology and geriatrics.

The clinical training component of the program reinforces the course material and a patient-oriented model of practice. One full term is reserved for this practicum element which will be undertaken in hospitals or community pharmacies. A co-op option will be available to a small number of students.

The proposed program is fully consistent with the standards set by the Association of Faculties of Pharmacy of Canada.[5]

2. Academic Quality

The program was approved by the Senate of the University of Ottawa on April 11, 1988.

3. Financial Viability

The University of Ottawa indicates that a significant amount of operating and capital expenditures will be incurred in the mounting of this program.

The Committee notes that the equivalent of eighteen new full-time faculty positions are planned to support the program. This would involve a Chair of the School of Pharmacy and fourteen full-time professors, who would offer pharmacy courses and laboratories as well as plan and supervise the clinical program.

In addition, the University will require ten clinical instructors (2 Full-Time Equivalents) to supervise the clerkships included in the second, third and fourth years of the program and the equivalent of two full-time positions to offer non-pharmacy courses and laboratories.[6]

With regard to obtaining the necessary financing to ensure the viability of the proposed program on a long-term basis, the University would not accept its first pre-pharmacy students before 1993-1994, and the University would, at that time, be in a position to request a strategic corridor shift in order to fund the program.

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[5] University of Ottawa, Updated Submission to the Ontario Council on University Affairs, Bachelor of Pharmacy Program, July 13, 1990, Point 2.0.

[6] University of Ottawa, Updated Submission to OCUA, Bachelor of Pharmacy Program, July 13, 1990, Points 2.2 and 2.3.

The University would also approach the Ministry of Colleges and Universities for start up grants in support of the program.

The University of Ottawa notes that additional space would be required for the program and that some renovation and building costs may be covered by the Ministry of Colleges and Universities. The University also intends to obtain financing from private sources in order to fund the capital expenditures necessary to support the proposed program.

The Committee concludes that, at this time, the financial viability of the proposed program is not assured.

4. Projected Enrolment

With respect to projected enrolment levels for the new program, the University of Ottawa indicates that it intends to admit 40 full-time students per year after the initial pre-pharmacy year of study. This would generate a total steady-state enrolment level of 160 pharmacy students in year five of the program's operation. The University expects that the program will graduate up to 40 students per year at the steady-state.

The University of Ottawa indicates that were the proposed program put in place, the projected enrolment level of 40 students per year could be increased at a later date.

5. Co-operation with other Post-secondary Institutions

The University of Ottawa indicates that it will be solely responsible for the proposed program. However, a large number of teaching hospitals and other clinical settings which already co-operate with the University's Faculty of Health Sciences for clerkships in Medicine and practicums in Nursing, Occupational Therapy and Physiotherapy will be invited to participate in the clerkship component of the fourth year of the program. Private pharmacies will also provide placements in support of the co-operative option of the program.

The University of Ottawa's Sudbury outreach program would play an important role in providing clinical placements within remote communities. Co-operation with Laurentian University regarding the pre-pharmacy year of study may also become a component of the program. This would permit northern residents to complete the pre-pharmacy year of study at Laurentian University. The Committee believes that this would facilitate the participation in the program of students from Northern Ontario.

6. Societal Need and Student Demand

The University of Ottawa argues that the proposed program will meet a societal need for bilingual pharmacists who will practice in hospital pharmacies, community pharmacies, and in rural and remote locations.

The University argues that the need for bilingual pharmacists is most readily apparent when one reviews the number of pharmacists per person in Ontario and Canada. According to 1986 census data, the University argues that there is one pharmacist for every 1,515 inhabitants in Canada, and in Ontario the corresponding ratio is 1:1,526. However, the University notes that when one compares the number of pharmacists who use the French language alone or with other languages, the pharmacist/Franco-Ontarian population ratio is one for every 3,688 people and that

> the Francophone population of three regions (centre north, northwest and west) [have] for all intents and purposes no pharmacists who are able to serve them in French. Of the three other regions (northeast, east and centre), the Francophone population of the east, with one pharmacist for every 3,847 inhabitants, has the worst ratio. This most likely results from the fact that the eastern region holds the largest concentration of Francophones in the province.[7]

The University concludes that approximately 160 additional French-speaking pharmacists will be required to bring the francophone ratios in step with the ratios for other Ontarians. This is roughly equivalent to four times the annual number of graduating bilingual pharmacists projected for the proposed program.[8]

The Committee notes that the Ministry of Health indicated that there is a serious shortage of hospital pharmacists. The University of Ottawa indicates that in recognition of this shortage, the proposed program was designed to include specific training in hospital pharmacy practice. Three courses/practicums can be completed in a hospital setting.[9] A fourth course entitled "Gestion en pharmacie d'hôpital" (PHM 115, 7 cr.) was specifically designed for students who wish to work in hospitals. The University of Ottawa has established close working relationships with the Ottawa General Hospital, the Ottawa Civic Hospital and the National Defence Medical Centre. These hospitals will provide practical training sessions and residency programs in hospital pharmacy. Other hospitals such as the Children's Hospital of Eastern Ontario which specializes in the pharmacotherapy of children, and the Elizabeth Bruyere Centre which specializes in elderly and chronic care have also indicated that they would be interested in offering practicum opportunities to students enrolled in the program. The University intends to develop a specialized diploma in hospital pharmacy once the undergraduate program is in place.

The University points out that almost all of the hospitals and community pharmacies, whose support for the proposed program has been confirmed, serve both francophone and anglophone clientele. By producing graduates who would be functionally bilingual, the program will meet a growing need for pharmacists to provide advice to patients in both the community pharmacy context and the hospital setting in either official language.

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7. University of Ottawa, Response to OCUA Request for Additional Information, January 8, 1991, p. 7.

8. Ibid., p. 8.

9. Pharmacie pratique II (PHM 412, 2 cr.);
Pharmacie pratique III (PHM 413, 2 cr.); and
Pharmacie clinique II (PHM 115, 7 cr.).

In order to meet the need for pharmacists in rural areas, the University of Ottawa intends to reserve a number of places in the program for candidates originating from remote and rural areas - particularly in northern Ontario. All students, but particularly those originating from remote locales, would be encouraged to complete a portion of their clinical training in their own regions. To facilitate the achievement of this objective, the University indicates that

> a significant number of clinical placements will be offered in remote clinical settings and affiliated clinical teaching staff will be identified and appointed accordingly; [and that]
>
> the institutional and private partners in the selective co-operative option... which is planned would be selected with the view to offer a variety of internships in all the regions of the province, including placements in remote areas.[10]

The University further noted that students originating in the North could complete their first year course (pre-pharmacy) at Laurentian University, providing that the two universities could co-operate to that effect, since Laurentian University offers the equivalent courses in French and English.

The University of Ottawa is convinced that these measures will improve the number of graduates who will practice their profession in remote locales, because its experience with the first 42 graduates of its occupational therapy and physiotherapy program indicates that graduates often return to practice within the organization and region in which they completed their clinical training.[11]

The Academic Advisory Committee was provided with extensive documentation of societal need for program graduates originating from hospitals throughout northern and eastern Ontario as well as numerous other organizations.

Comments, such as those provided by the Ottawa General Hospital, reflected the widespread and enthusiastic endorsement of the proposed program:

> Comme président-directeur général d'une institution hospitalière, je suis en mesure de vous confirmer que l'Hôpital Général d'Ottawa s'engage à recruter un certain nombre de pharmaciens francophones pour servir convenablement notre clientèle. A date, il s'avère très difficile d'en recruter.[12]

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[10] Letter from Dr. Marcel Hamelin, Rector and Vice-Chancellor, University of Ottawa to Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, November 13, 1990, p. 4.

[11] Ibid.

[12] Letter from M. Jacques Labelle, Président-directeur général, Ottawa General Hospital to Mme M. Bégin, University of Ottawa, December 12, 1990.

Like the Hawkesbury and District General Hospital, most hospitals offered both training opportunities and permanent employment to program graduates:

> En tant que directeur général d'un établissement de santé, je sais que les besoins sont constants dans notre communauté et dans notre établissement et que certains seraient intéressés et pourraient assurer l'emploi de gradués. En plus, si les conditions s'appliquent, nous serions prêts à offrir notre milieu comme centre de formation.[13]

Other hospitals which provided evidence of societal need for the proposed program included the Hôpital Montfort, Almonte General Hospital, Elizabeth Bruyere Health Centre, Ottawa Civic Hospital, Children's Hospital of Eastern Ontario, Saint-Vincent Hospital, Grace General Hospital, Cornwall General Hospital, Pembroke General Hospital, Pembroke Civic Hospital, Winchester District Memorial Hospital, Brockville General Hospital, Queensway-Carleton Hospital and Renfrew Victoria Hospital.

Reports of the Ontario Hospitals Association and the Ontario College of Pharmacists have indicated that there is a shortage, not only of hospital pharmacists, but also of community pharmacists throughout Ontario. The University of Ottawa states that Ontario produces less than 60% of its annual need for pharmacists and that over 40% of Ontario's pharmacists have been imported since 1976.[14] Community pharmacies, such as Desjardins Pharmacie Limitée substantiated the need for program graduates:

> En tant que Président des Pharmacies Desjardins Limitée, je suis en mesure de vous assurer que j'aurai toujours de la place dans mon office pour des pharmaciens francophones.[15]

Also writing in support for the need for additional BSc Pharmacy graduates were the Social Planning Council of Ottawa-Carleton, the Council on Aging, the Ontario Branch of the Canadian Society of Hospital Pharmacists, the Ontario College of Pharmacists and Merck Frosst Canada Inc.

Student demand for the program is expected to be strong. Students would come from across Ontario, as the University has committed to reserve a number of places in the program for students originating from outside eastern Ontario. The University of Ottawa indicates that its experience with the BSc programs in Occupational Therapy and Physiotherapy, also offered in the bilingual format, suggests that student demand will exceed the number of places available and that very high academic standards will prevail due to competition for admission. The University notes that francophone/bilingual participation in these two programs is very high and that the proposed Pharmacy program will draw from a pool of similarly prepared high school students.[16]

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[13] Letter from M. Michel P. Lalonde, Président-directeur général, Hawkesbury and District General Hospital to Dr. M. Bégin, University of Ottawa, December 14, 1990.

[14] University of Ottawa, Updated Submission to OCUA, Bachelor of Pharmacy Program, July 13, 1990, Point 6.1.

[15] Letter from M. Jean-Paul Desjardins, Président, Desjardins Pharmacies to Dr. M. Bégin, University of Ottawa, January 9, 1991.

In consultation with the University of Toronto, the Committee learned that the application to admission ratio there is approximately 2:1. The University of Toronto indicated that it is unlikely that its School of Pharmacy will significantly reduce its intake from the current level of 168 students per year.[17] The Committee is, therefore, satisfied that the proposed program would contribute to a reduction in the societal need for pharmacists in Ontario and, in particular, for bilingual pharmacists.

The Academic Advisory Committee is satisfied that there is sufficient evidence of societal need and student demand for the proposed program.

7. Uniqueness

The proposed program is distinct from the existing program at the University of Toronto in that it will produce bilingual pharmacists capable of meeting a specific societal need currently unmet by the existing program, it would offer nearly 400 hours of clerkships in practical settings under the direct supervision of clinical staff associated with the School of Pharmacy and it would offer a co-operative option to a small number of students.

The Committee is satisfied that this program has distinctive and unique elements that would differentiate it from the existing program, and that any duplication of the program offered at the University of Toronto would be justifiable in light of the regional and linguistic nature of the societal need for graduates of the University of Ottawa's program.

8. Local and Regional Support

As evidenced by letters from the pharmacy profession, local and regional hospitals, community pharmacists and potential financial supporters of the program such as Merck Frosst Canada, support for the proposed program is very strong and widespread.

However, the Ontario Council on University Health Sciences of COU did not support the program because it believed that the issues of francophone/bilingual student demand and how French-language services in rural areas could be achieved had not been adequately demonstrated, and how the program would impact on other programs within the University was not detailed.

The proposed program was also not supported by the Ministry of Health since it argued that the need for French-speaking pharmacists was not documented in the proposal and that it believed that there was a sufficient supply of French-speaking pharmacists but a maldistribution.

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[16] Letter from Dr. Marcel Hamelin, Rector and Vice-Chancellor, University of Ottawa to Dr. H. V. Nelles, Chairman, Ontario Council on University Affairs, November 13, 1990, p. 1.

[17] Telephone conversation with Dr. D. G. Perrier, Dean, Faculty of Pharmacy, University of Toronto, January 24, 1991.

The Academic Advisory Committee is satisfied that the University of Ottawa has provided additional information which addresses these criticisms and that the societal need and student demand for the program has been adequately demonstrated.

9. Institutional Appropriateness

The proposed Bachelor of Science in Pharmacy program is consistent with the University of Ottawa's commitment to offer programs in a bilingual and bicultural format, and with the University's specific commitment to offer professional, bilingual programs in the health sciences. The BSc programs in Nursing, Human Kinetics, Occupational Therapy and Physiotherapy are already in place. On the verge of implementation are masters programs in Social Work, and Audiology and Speech Pathology.

Consistent with the recommendations of the Pharmaceutical Inquiry of Ontario, the University has a Health Science Faculty, a Faculty of Medicine, School of Nursing and School of Human Kinetics. The related teaching and research strengths are already in place. The proposed program will also benefit from access to a variety of teaching hospitals and clinical settings with which co-operative working arrangements have already been established.

The Committee notes that the basic science courses required in the pre-pharmacy year are already in place.

The University is also in the process of creating a Life Sciences Technology Park wherein many pharmaceutical industries will be established.

The Academic Advisory Committee believes that the proposed program is an appropriate development at the University of Ottawa.

10. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Bachelor of Science program in Pharmacy at the University of Ottawa be recommended as eligible for counting on the condition that the University satisfy the Ministry of Colleges and Universities that the financial resources necessary to develop and maintain the program on a long-term basis have been secured.*

Academic Advisory Committee
January 25, 1991

Appendix M

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Music (BA and Honours BA)
University of Western Ontario

New Undergraduate Quasi-professional Program Considered for Funding Eligibility

(Cursory Review)

On November 8, 1990, the University of Western Ontario submitted its new undergraduate, quasi-professional General and Honours Bachelor of Arts program in Music for funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) for comment. Council referred the program, and COU's comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

The proposed Bachelor of Arts program in Music, General and Honours, was submitted for review due to modifications to program content. The Music Performance requirements for both programs were significantly reduced, from a requirement of Grade X to Grade VI performing ability. Modifications to the existing program totalled less than 25% of program content.

The University of Western Ontario argued that the former performance requirements were unnecessarily high, given that the objective of the Bachelor of Arts program in Music was not to produce professional performers. Most BA Music graduates pursue additional graduate work or find employment in areas of musicology, music theory, music librarianship, music journalism, publishing, broadcasting and arts management.

The University expects to enrol 10 to 15 students per year for a steady-state total enrolment of 50 students in the program.

The proposed program was approved by the Senate of the University on June 1, 1989.

The majority of COU comments indicated that there were no objections to the proposed program.

The Academic Advisory Committee believes that the request for funding of a modified General and Honours Bachelor of Arts program in Music with reduced performance requirements at the University of Western Ontario is reasonable and justifiable.

Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the General and Honours Bachelor of Arts program in Music at the University of Western Ontario be recommended as eligible for counting.*

Academic Advisory Committee
December 12, 1990

Appendix N

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Great Lakes Biology (Honours BSc)
University of Windsor

New Undergraduate Special Program Considered for Funding Eligibility

On August 28, 1990, the University of Windsor submitted the five-year Honours Bachelor of Science program in Great Lakes Biology to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) for comment.

Council referred the program, and COU's comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

1. Proposed Curriculum

The proposed program is based upon a number of existing courses offered within the University's department of Biological Sciences and corollary research strengths within the Great Lakes Institute. Five new courses have been developed specifically for this program.

The program will be offered on a co-op model, and requires five years of study - eight study semesters and four work semesters. Work semesters will be offered primarily during the Summer and Fall months to coincide with the research efforts of most employers.

Course work emphasizes the biology, ecology, ecotoxicology, and management of the Great Lakes system as well as basic chemistry, mathematics, computer science and biology. An undergraduate thesis is required.

2. Academic Quality

The program was approved by the Senate of the University of Windsor on June 29, 1990.

3. Financial Viability

The University of Windsor has assured Council of its commitment to the financial viability of the program. Board of Governors' approval was not required because the necessary resources would be reallocated from within the University's budget.

4. Projected Enrolment

With respect to projected enrolment levels for the new program, the University of Windsor indicates that the program can initially enrol up to 15 new students per year. The University projects that a steady-state enrolment of 60 students will be achieved by 1993-94.[1]

5. Co-operation with other Post-secondary Institutions

No co-operation witn other post-secondary institutions was indicated.

6. Societal Need and Student Demand

The University of Windsor indicates that the proposed new program

> aims to provide students with the background required to monitor and to evaluate the significance of chemical inputs into the Great Lakes ecosystems via both specialized course work and work placements in government and industrial laboratories.[2]

The program was designed to meet a need for environmental scientists capable of working in and communicating with industrial, governmental and academic centres. The co-op element of the program will ensure that graduates have had the opportunity to develop their skills and apply the knowledge they obtain in the academic component of the program to different employment experiences.

Various agencies and industries in Ontario have identified a need for environmental scientists with special training in the management of the Great Lakes system. The Ontario Ministry of the Environment was particulary interested in program graduates, stating:

> MOE, other government agencies and the private sector would benefit from:
>
> - access to a source of trained professionals with a balanced overview of environmental, economic and sociological issues in the Great Lakes Basin;
>
> - opportunities to broaden the education and training of existing staff; and
>
> - access to academic expertise in the computing field.[3]

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[1] University of Windsor, Co-operative Education Proposal Great Lakes Biology, August 28, 1990, p. 27.

[2] Ibid., p. 18.

[3] Letter from Mr. J. N. Bishop, Director, Water Resources Branch, Ministry of the Environment to Dr. D. Haffner, Associate Director, Great Lakes Institute, University of Windsor, November 26, 1987.

The University notes that the Ministry of the Environment "has indicated their interest in accepting all students in the program" in temporary or full-time positions.[4] Other potential employers indicating that they would be interested in providing co-op placements or hiring program graduates include Environment Canada and the Lambton Industrial Society. The International Joint Commission, Great Lakes Regional Office, indicated a willingness to permit their staff members to teach courses within the proposed program.[5]

Program graduates will have the opportunity to develop careers in either the scientific or environmental management aspects of aquatic ecology within the federal or provincial government, or the many new laboratories and consulting firms being developed in response to recent environmental legislation.

The University of Windsor indicates that due to the long-term nature of the societal need for environmental scientists, negotiations are underway with the Water Resources Branch of the Ontario Ministry of the Environment to recognize the Great Lakes Institute as a centre of excellence. If successful, additional financial support provided by the Ministry of the Environment and Environment Canada will support state of the art training and research facilities to which students in the proposed program will have access.

Student demand for the program is expected to be sufficient to meet projected enrolment levels. The University of Windsor believes that this program will be of special interest to native groups who depend upon renewable resources, therefore, the University intends to contact them annually to ensure that they are aware of the program. The majority of the applicants to this program are expected to be Ontario high school graduates, particularly those from within the "tri-county" area surrounding the University of Windsor.

The Academic Advisory Committee is satisfied that there is sufficient societal need and student demand for the proposed program.

7. Uniqueness

The Academic Advisory Committee notes that the emphasis of the program would be unique within the Ontario university system due to its specific emphasis upon the Great Lakes. However, the Academic Advisory Committee is concerned that this specificity of emphasis is philosophically too restrictive for a first undergraduate degree. The Committee notes that the program encompasses the study of fresh water biology and strongly suggests that the University consider broadening the name of the program accordingly. The Committee believes that the narrowness of the current focus will ultimately limit the job mobility of graduates outside of the regions bordering upon the Great Lakes.

8. Local and Regional Support for the Program

Comments from the Council of Ontario Universities indicated that there were no objections to the proposed program. However, the Committee noted that there were two comments related to the inappropriateness of the program's title for a baccalaureate degree, noting that too much specialization at the undergraduate level should be discouraged since it limits future academic opportunities for graduates.

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[4] University of Windsor, Co-operative Education Proposal Great Lakes Biology, August 28, 1990, p. 24.

[5] Ibid., Appendix XIV.

The University of Windsor submission provided a number of examples of local and regional support for the proposed program.

9. Institutional Appropriateness

The University of Windsor argues that it offers the ideal location for the offering of this program as it is situated in the centre of the Great Lakes Basin, and has access to the International Joint Commission's Great Lakes Regional Office in Windsor, the nearby U.S. Fish and Wildlife Service and the National Oceans and Atmospheric Research Administration.

Facilities at the Great Lakes Institute include a well-staffed laboratory for chemical analysis and water-quality research. The Institute also has three boats which will be used for offshore and nearshore research. Significant research funding received by the Institute will enable students to participate in a variety of research projects. The University has indicated that current fundraising efforts will be used to further enhance facilities for the program.

The program will be supported by existing strength within the Department of Biological Sciences. One new faculty member will be required to mount the program.

The Academic Advisory Committee believes that the proposed program is an appropriate development at the University of Windsor. However, the Committee strongly suggests that the University of Windsor consider changing the program name to reflect more generally the fresh water science orientation of the program.

10. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Honours Bachelor of Science program in Great Lakes Biology at the University of Windsor be recommended as eligible for counting.*

Academic Advisory Committee
December 12, 1990

Appendix O

ONTARIO COUNCIL ON UNIVERSITY AFFAIRS

ACADEMIC ADVISORY COMMITTEE

Environmental Studies (Honours BES)
York University

New Undergraduate Quasi-professional Program Considered for Funding Eligibility

On July 26, 1990, York University submitted the Honours Bachelor of Environmental Studies program to Council for a recommendation regarding funding eligibility. In accordance with established procedures, Council circulated the proposal to the Council of Ontario Universities (COU) for comment.

Council referred the program, and COU's comments, to its Academic Advisory Committee and asked for specific advice thereon. The Committee's findings with respect to the program are summarized below.

1. Proposed Curriculum

The proposed program is offered within the Faculty of Environmental Studies. The objective of the program is to create environmental generalists who

> are literate in environmental issues, trained to think environmentally, and who can appreciate the environmental consequences of societal policies and actions.[1]

York University stresses that the program is in environmental studies and not environmental sciences, and that although some students may elect to choose science courses as part of a thematic concentration, it is not the intention of the program to produce specialists in applied environmental science.

Four thematic concentrations will be offered:

- Nature, Technology and Society;
- Human Settlement and Population;
- Global Development, Peace and Justice; and
- Environmental Policy and Action.

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[1] York University, Submission to OCUA New Undergraduate Program in Environmental Studies, July 26, 1990, p. 20, Appendix I.

Students will be required to adopt a theme concentration. The proposed program can be taken as a specialized honours program, a combined honours with a double major, or as an honours program in conjunction with a minor in one additional discipline. A twelve week practicum and follow-up report is required after the third year of full-time study.

2. Academic Quality

The program was approved by the Senate of York University on June 28, 1990.

3. Financial Viability

York University has assured Council of its commitment to the financial viability of the program. Board of Governors' approval was not required. The University indicates that it will seek program adjustment funding for the program but that the program's long-term viability is not conditional upon the receipt of these funds.

4. Projected Enrolment

York University intends to admit 80 students per year to the program, beginning in 1990-91. The program is expected to achieve a total steady-state enrolment of 280 students by 1994-95. The steady-state number of graduates is projected to be 55 per year, with the first graduates to be produced in May 1995.[2]

5. Co-operation with other Post-secondary Institutions

No co-operation with other post-secondary institutions is envisioned. However, York University is involved in a wide variety of joint endeavours with other universities in Ontario, Canada and abroad.

For example, the Faculty of Environmental Studies is collaborating with the Faculty of Environmental Studies at the University of Waterloo on broad-scale environmental projects in both Indonesia and Thailand. Projects are also ongoing with the Universities of British Columbia, Calgary and Dalhousie University. Regarding universities abroad, York University has research and graduate student exchanges with the University of Nairobi, the Asian Institute of Technology (Bangkok, Thailand), the University of Indonesia (Jakarta), and the Institute of Technology Bandung (Indonesia).

6. Societal Need and Student Demand

York University argues that there is a strong, growing and sustainable societal need for graduates of the proposed program, stating:

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[2] Ibid., p. 4.

> The intrinsic importance of environmental issues, and the need to develop a new level of societal and institutional capability to deal with them, are clear and compelling.[3]

Although the University notes that the demand for graduates of environmental science programs is being met by an increasing number of programs in that area, the need for those with a more general environmental education focusing on environmental studies as an interdisciplinary field is not being met.

The University indicates that graduates will find employment with federal and provincial governments, government agencies, private companies in such sectors as environmental consulting and planning, urban development, environmental services, and manufacturing and processing, as well as non-governmental organizations involved in environmental advocacy, international development and social action.

The Academic Advisory Committee was provided with a significant amount of evidence from potential employers regarding the need for program graduates within government agencies, non-government organizations and private corporations. Specific comments reflecting the need for program graduates were provided by organizations such as Resource Systems Management International Inc. which stated:

> ...your proposed new B.E.S. programme, ...is very relevant to our firm, and I think, to our national and global future...half our work takes place in Canada for provincial and federal clients. Increasingly, we are becoming aware of the growing private sector demand for environmental consulting assistance, as well. The remaining half of our firm's work is in developing countries in South America, the Middle and Far East...
>
> We find it very difficult to find candidates for our firm who have a generalist outlook - and who can think strategically. Because environmental issues are inevitably multi-disciplinary and entail an understanding of ecological/bio-physical, urban, socio-cultural, infrastructural and economic components - and because developing solutions to environmental issues require an ability to make measured judgments, I applaud your focus on "environmental thinking". One can always find specialists in each of the above areas to provide expertise, but the difficulty is finding people who can synthesize these experts' input into a problem-solving framework.[4]

Other organizations which substantiated the need for program graduates in the workplace included the Canadian Federation of Independent Business, The Impact Group, Institute of Environmental Research Inc., Environment Probe, World Wildlife

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[3] Ibid., p. 5.

[4] Letter from Ms. Barbara I. Lamb, Resource Systems Management International Inc., to Dr. E.S. Spence, York University, July 3, 1990.

Fund, Federal Environment Assessment and Review Office, City of North York - Department of Planning, the Ontario Ministry of Industry, Trade and Technology and many others.

York University argues that the increased desire to include environmental studies in the public school curricula at all levels will also increase the need for Bachelor of Education graduates with undergraduate preparation in environmental studies.[5]

The Committee reviewed evidence that student demand for environmental programs of all kinds has grown significantly over the past several years. The University indicates that, according to Ontario University Application Centre (OUAC) data, the pattern of increased student demand is evident among all types of applicants -secondary school, regular, and advanced standing.[6]

York University also indicated that it confirmed these trends with the University of Waterloo, which offers the only other similar program within the Ontario university system. The University of Waterloo indicated that applications to enter its program in Environment and Resource Studies have more than doubled since 1986 and that the cut-off grade for secondary school applicants is close to 80%.[7]

Finally, the Greater Toronto Area, in which York University is situated, is expected to experience the greatest population growth of any region in Ontario to the year 2011. The proposed program will meet the growing student demand for a BES degree program originating from within this region.

The Committee concludes that there is evidence of unmet student demand for this particular type of environmental studies program.

The Academic Advisory Committee is satisfied that there is sufficient societal need and student demand for the proposed Environmental Studies program at York University.

7. Uniqueness

The proposed program will be the second academic unit within the Ontario university system that has the field of environmental studies as its exclusive focus and rationale. The other program is offered within the Department of Environment and Resource Studies at the University of Waterloo.

The Committee is satisfied that a second program in Ontario in Environmental Studies is justifiable due to the projected societal need for graduates and the evidence of significant and growing regional student demand which is currently unmet.

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[5] York University, Submission to OCUA New Undergraduate Program in Environmental Studies, July 26, 1990, p. 9.

[6] Ibid., p. 10.

[7] Memorandum from Dr. J. Bater, University of Waterloo, to Dr. T. Spence, York University, July 20, 1990.

8. Local and Regional Support for the Program

The Committee reviewed an extensive collection of letters written in support of the program from organizations and individuals located throughout Ontario.

Comments from COU indicated that there were no objections to the proposed program.

9. Institutional Appropriateness

The proposed program is based on significant existing strengths within the Faculty of Environmental Studies at York University. The University has offered a Masters program in Environmental Studies since 1968. This program received a rating of "good quality" from OCGS as a result of a quality appraisal exercise conducted in 1988. A doctoral program in Environmental Studies is also under development at York University.

The proposed program is consistent with the University's commitment to interdisciplinary teaching and research as well as to international development.

The Committee is satisfied that the necessary faculty and resources required to mount the program are already in place and that this program is an appropriate development at York University.

10. Funding Recommendation

The Academic Advisory Committee, therefore, recommends to the Ontario Council on University Affairs that:

> *enrolment in the Honours Bachelor of Environmental Studies program at York University be recommended as eligible for counting.*

Academic Advisory Committee
October 26, 1990

OCUA Public Meetings 1990-91

OCUA Public Meetings 1990-91

Date	**Location and Participants**
April 20, 1990	**Ontario Institute for Studies in Education, Toronto** Ontario Confederation of University Faculty Associations Ontario Institute for Studies in Education Confederation of University Staff Associations Confederation of Ontario Part-time University Students
May 4, 1990	**Ryerson Polytechnical Institute, Toronto** Ryerson Polytechnical Institute Council of Ontario Universities
May 10, 1990	**Ontario Council on University Affairs, Toronto** Lakehead University
May 11, 1990	**MacDonald Block, Queen's Park, Toronto** Ontario College of Art Laurentian University Algoma College Hearst College Nipissing College York University Ontario Federation of Students
May 18, 1990	**Carleton University, Ottawa** Carleton University Trent University Queen's University University of Ottawa
May 25, 1990	**McMaster University, Hamilton** McMaster University University of Toronto Brock University University of Guelph
June 22, 1990	**Wilfrid Laurier University, Waterloo** Wilfrid Laurier University University of Western Ontario University of Windsor University of Waterloo

OCUA Recommendations and Government Responses, 1990-91

OCUA Recommendations and Government Responses, 1990-91

Recommendation	Title	Response
	Advisory Memorandum 90-I	
90-1	Escalation of BIU value for Corridor Shift BIUs	Accepted
90-2	Acceleration of Flow of Operating Grants Available for Corridor Shifts	Accepted
90-3	Downward Adjustment to the Formula Grants Envelope Base BIUs for the Ontario College of Art	Accepted
90-4	Institutional Corridor Shifts Resulting from the 1989-90 Corridor Negotiations	Accepted
90-5	Accountability Provisions for the Transition to New Institutional Corridors and Base BIUs	Accepted
	Advisory Memorandum 90-II	
90-6	Differentiation Grant for Trent University 1990-91	Accepted
90-7	Northern Ontario Operations Grants 1990-91	Accepted
90-8	Northern Ontario Mission Grants 1990-91	Accepted
90-9	Bilingualism Grants 1990-91	Accepted
90-10	Research Overheads/Infrastructure Funding Grants 1990-91	Accepted
90-11	International Graduate Student Differential Fee Waiver Support 1990-91	Accepted
90-12	Allocation of Funding for Disabled Students 1990-91	Accepted
90-13	Accessibility Envelope Funding for 1990-91	Accepted
90-14	Corridor Shift Funding and Phase-Out of Accessibility Envelope for 1990-91	Accepted
90-15	Formula Grant Allocation for 1990-91	Accepted
	Advisory Memorandum 90-III	
90-16	Eligible Expenditures and Accountability Mechanism for the $18 Million Additional Grant for 1990-91	Accepted

Recommendation	Title	Response
	Advisory Memorandum 90-IV	
90-17	Government Grants and Tuition Fees for 1991-92 to Support Instructional Quality Enhancements in Ontario Universities	Not Accepted
90-18	Government Grants for 1991-92 to Support Enhanced Space Utilization	Not Accepted
90-19	Strategic Program Corridor Funding for 1991-92 to Support the Training of Future Educators for Elementary and Secondary Schools and Colleges of Applied Arts and Technology in Ontario	Not Accepted
90-20	Targetted Bursaries for 1991-92 to Support the Training of Future Educators for Elementary and Secondary Schools and Colleges of Applied Arts and Technology in Ontario	Not Accepted
90-21	Government Grants for 1991-92 to Support Faculty Renewal in Ontario's Universities	Not Accepted
90-22	Research Overhead/Infrastructure Envelope	Not Accepted
90-23	Government Operating Grants for 1991-92 to Meet the Cost of Council's Basic Objectives in Funding Provincially-Assisted Universities and their Affiliated Colleges, Ryerson Polytechnical Institute, the Ontario Institute for Studies in Education, the Ontario College of Art, and Dominicain College	Not Accepted
90-24	Formula Fee Rates for 1991-92 to Meet the Cost of Council's Basic Objectives	Not Accepted
90-25	Level of Support for Major Repairs, Renovations, Alterations and Replacement Projects in 1991-92 for the Cyclical Renewal of the Existing Capital Stock	Not Accepted
90-26	Level of Support for Deferred Maintenance of Physical Plant in 1991-92	Not Accepted
90-27	Additional Funding for the Incremental Costs of Bilingualism Programs	Not Accepted

Recommendation	Title	Response
	Advisory Memorandum 90-V	
90-28	New Reporting Requirements for Differentiating Between Honours and General Programs	Accepted
90-29	Implementation Period for New Reporting Requirements for Differentiating Between Honours and General Programs	Accepted
90-30	Monitoring of Enrolment Reporting	Accepted
	Advisory Memorandum 90-VI	
90-31	Policy on Independent Secular Degree-Granting Authority for Privately-Funded Institutions	No Response
90-32	Policy on the Establishment of New Freestanding Degree-Granting Institutions	No Response
90-33	Policy on the Establishment of Free-Standing, Religious Degree-Granting Institutions	No Response
90-34	Policy on Access to Secular Degree Credentials for Programs through Affiliation	No Response
90-35	Access to Affiliation	No Response
90-36	Policy on Provincial Operating Grants for Programs Offered by New Affiliated Institutions	No Response
90-37	Policy on Access to Secular Degree-Granting Credentials for Programs Offered by Extra-Territorial Institutions	No Response
	Advisory Memorandum 90-VII	
90-38	1990-91 Algoma College Extraordinary Funding	Accepted
	Advisory Memorandum 90-VIII	
90-39	Ontario Graduate Scholarship Stipends 1991-92	Not Accepted

Recommendation	Title	Response
90-40	Number of General Ontario Graduate Scholarships for 1991-92	Not Accepted
90-41	Supplementary Ontario Graduate Scholarships	Not Accepted
90-42	Ontario Graduate Scholarships to Persons on Student Visa in 1991-92	Accepted
	Advisory Memorandum 90-IX	
90-43	Establishment of a Special Targeted Envelope Designed to Improve Native Access and Retention	No Response
90-44	Principles and Guidelines for the Administration of the Native Access and Retention Envelope	No Response
90-45	Review of the Issues of the Access and Retention of Students from Minority Ethno-Cultural Backgrounds and Disadvantaged Social and Economic Backgrounds	No Response
	Advisory Memorandum 90-X	
90-46	Continued Eligibility of Enrolment in the Existing Diploma Program and Bachelor of Business Management Degree Program in Business Management at Ryerson Polytechnical Institute for Funding Purposes	Accepted
90-47	Continued Eligibility of Enrolment in the Existing Bachelor of Technology Degree Program in Applied Computer Science at Ryerson Polytechnical Institute for Funding Purposes	Accepted
90-48	Continued Eligibility of Enrolment in the Existing Diploma Program and Bachelor of Technology Degree Program in Electrical Engineering at Ryerson Polytechnical Institute	Accepted

Recommendation	Title	Response
90-49	Continued Eligibility of Enrolment in the Existing Diploma and Bachelor of Applied Arts (Fashion) Degree Program at Ryerson Polytechnical Institute for Funding Purposes	Accepted
90-50	Continued Eligibility of Enrolment in the Existing Bachelor of Applied Arts (Journalism) Program in the Proposed New Four-Year Curriculum Format at Ryerson Polytechnical Institute for Funding Purposes	Accepted
90-51	Continued Eligibility of Enrolment in the Existing Diploma Program and Bachelor of Technology Degree Program in Laboratory Science at Ryerson Polytechnical Institute for Funding Purposes	Accepted
90-52	Continued Eligibility of Enrolment in the Existing Diploma Program in Landscape Architectural Technology at Ryerson Polytechnical Institute for Funding Purposes	Accepted
90-53	Continued Eligibility of Enrolment in the Existing Diploma Program in Metallurgical Technology at Ryerson Polytechnical Institute for Funding Purposes	Accepted
90-54	Authority for Ryerson Polytechnical Institute to Grant the Bachelor of Social Work (BSW) Degree Designation	Accepted
90-55	Authority for Ryerson Polytechnical Institute to Grant the Bachelor of Engineering (BEng) Degree Designation in Electrical Engineering	Accepted
	Advisory Memorandum 90-XI	
90-56	Distribution of the 1990-91 Program Adjustments Envelope	Not Accepted
90-57	Distribution of the 1991-92 Program Adjustments Envelope	Not Accepted

Recommendation	Title	Response
	Advisory Memorandum 90-XII	
90-58	Eligibility of Enrolment in the Graduate Diploma Program in International Veterinary Medical Development at the University of Guelph for Funding Purposes in 1991-92	Accepted
90-59	Eligibility of Enrolment in the Doctor of Philosophy Program in Family Relations and Human Development at the University of Guelph for Funding Purposes in 1991-92	Accepted
90-60	Eligibility of Enrolment in the Doctor of Philosophy Program in Psychology in Applied Social and Applied Developmental Psychology at the University of Guelph for Funding Purposes in 1991-92	Accepted
90-61	Eligibility of Enrolment in the Doctor of Philosophy Program in Psychology in Industrial/Organizational Psychology at the University of Guelph for Funding Purposes in 1991-92	Accepted
90-62	Eligibility of Enrolment in the Master of Science and Doctor of Philosophy Programs in Pharmacology at the University of Ottawa for Funding Purposes in 1991-92	Accepted
90-63	Eligibility of Enrolment in the Doctor of Philosophy Program in Computer Science at the University of Ottawa and Carleton University for Funding Purposes in 1991-92	Accepted
90-64	Eligibility of Enrolment in the Doctor of Philosophy Program in Accounting at the University of Waterloo for Funding Purposes in 1991-92	Accepted
90-65	Eligibility of Enrolment in the Doctor of Philosophy Program in English in Literature, Rhetoric and Professional Writing at the University of Waterloo for Funding Purposes in 1991-92	Accepted

Recommendation	Title	Response
90-66	Eligibility of Enrolment in the Doctor of Philosophy Program in Health Studies at the University of Waterloo for Funding Purposes in 1991-92	Accepted
90-67	Eligibility of Enrolment in the Master of Arts Program in Theory and Criticism at the University of Western Ontario for Funding Purposes in 1991-92	Accepted
90-68	Eligibility of Enrolment in the Master of Public Administration Program in Local Government at the University of Western Ontario for Funding Purposes in 1991-92	Accepted
90-69	Eligibility of Enrolment in the Master of Science and Doctor of Philosophy Programs in Neuroscience at the University of Western Ontario for Funding Purposes in 1991-92	Accepted
90-70	Eligibility of Enrolment in the Doctor of Philosophy Program in Sociology in Health and Aging at the University of Western Ontario for Funding Purposes in 1991-92	Accepted
90-71	Eligibility of Enrolment in the Doctor of Philosophy Program in Sociology in Social Class and Social Change at the University of Western Ontario for Funding Purposes in 1991-92	Accepted
90-72	Eligibility of Enrolment in the Master of International Business Administration Program at York University for Funding Purposes in 1991-92	Accepted
90-73	Eligibility of Enrolment in the Master of Arts Program in Translation at York University for Funding Purposes in 1991-92	Accepted
90-74	Eligibility of Enrolment in the Doctor of Philosophy Program in Economics at York University for Funding Purposes in 1991-92	Not Accepted
90-75	Eligibility of Enrolment in the Doctor of Philosophy Program in Social Anthropology at York University for Funding Purposes in 1991-92	Not Accepted

Recommendation	Title	Response
	Advisory Memorandum 90-XIII	
90-76	Eligibility of Enrolment in the General and Honours Bachelor of Arts Program in Health Studies at Brock University for Funding Purposes	Not Accepted
90-77	Eligibility of Enrolment in the General and Honours Bachelor of Arts Program in Applied Linguistics at Brock University for Funding Purposes	Not Accepted
90-78	Eligibility of Enrolment in the Bachelor of Social Work Program at Carleton University for 1991-92	Accepted
90-79	Eligibility of Enrolment in the Honours Bachelor Bachelor of Science (Agriculture) Program in Agronomy at the University of Guelph for 1991-92	Accepted
90-80	Eligibility of Enrolment in the Specialized Honours Bachelor of Science Program in Food and Dairy Science at the University of Guelph for 1991-92	Accepted
90-81	Eligibility of Enrolment in the Honours Bachelor of Fine Arts Program at Lakehead University for 1991-92	Accepted
90-82	Eligibility of Enrolment in the Honours Bachelor of Music Program at Lakehead University for 1991-92	Accepted
90-83	Eligibility of Enrolment in the Bachelor of Pharmacy Program at Laurentian University for Funding Purposes	Not Accepted
90-84	Eligibility of Enrolment in the Bachelor of Engineering and Society in Civil Engineering at McMaster University for 1991-92	Accepted
90-85	Eligibility of Enrolment in the Combined Honours Bachelor of Arts Program in Japanese Studies and Another Subject at McMaster University for 1991-92	Accepted

Recommendation	Title	Response
90-86	Eligibility of Enrolment in the Bachelor of Science Program in Human Kinetics at the University of Ottawa for 1991-92	Accepted
90-87	Eligibility of Enrolment in the Bachelor of Science Program in Pharmacy at the University of Ottawa for 1991-92	Not Accepted
90-88	Eligibility of Enrolment in the General and Honours Bachelor of Arts Program in Music at the University of Western Ontario for 1991-92	Accepted
90-89	Eligibility of Enrolment in the Honours Bachelor of Science Program in Great Lakes Biology at the University of Windsor for 1991-92	Accepted
90-90	Eligibility of Enrolment in the Honours Bachelor of Environmental Studies Program at York University for 1991-92	Accepted

Response to Advisory Memorandum 90-XI

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Dr. H.V. Nelles
Chairman
Ontario Council on University Affairs
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Dear Dr. Nelles,

Thank you for your letter of January 24, 1991, transmitting Advisory Memorandum 90-XI, "The Allocation of the 1990-91 and 1991-92 Program Adjustment Envelopes". My delay in responding stems from my concern with the direction the envelope has taken. This concern has necessitated a through analysis not only of council's advice to me but also of the assumptions on which that advice was framed.

It is my understanding that the original intention of the Program Adjustment Envelope was to support projects which are in accordance with government priorities, which are institutionally appropriate, and which will effect significant change. The Envelope was never intended to serve as supplementary funding in support of minor adjustments which are part of the normal process of institutional change.

While all of the projects recommended for funding by the council in Advisory Memorandum 90-XI meet the minimum criteria for the Envelope, I do not believe that most of them accomplish the true objectives established for the program.

Having expressed reservations concerning the direction in which the envelope has been evolving, I must acknowledge the very important work which council has done in endeavouring to maximize impact in terms of system change with what is, obviously, a very small component of public funding provided to the system through this Envelope. Thus, while I find myself unable to accept council's advice in its entirety, I have selected from the projects contained in that advice twenty-six (26) which are clearly consistent with identified priorities. Enclosed, as an appendix to this letter, is a list of the twenty-six projects to which I am prepared to allocate Program Adjustment Envelope funding in 1990-91 and 1991-92.

You will note that the list includes a proposed cash flow for each project over a two-year period. In the case of multi-year projects extending beyond 1991-92, this represents, in effect, a pre-flow, for which appropriate special accounting arrangements will be established by the ministry. The effect of flowing the funds in this manner is to leave the maximum amount available for allocation, according to a revised process on which I will seek the council's advice, commencing in fiscal year 1992-93. Total envelope expenditures will be $7.0 million in 1990-91, including the $3.3 million previously committed, and approximately $4.0 million in 1991-92, including the $1.3 million previously committed.

I look forward to working with council in a review of the Program Adjustment Envelope allocative process. Meanwhile, please convey to members and staff of the council my sincere appreciation for the time and effort which they have invested to date in the administration of this Envelope.

Yours sincerely,

Richard Allen

Richard Allen
Minister

Program Adjustment Grants - 1990-91 and 1991-92

PROJECT	1990-91	91-92	TOTAL
ALGOMA			
Ojibway language	14		14
BROCK			
BSc/BEd pgm	171	72	243
BEd Tech Studies	52	115	167
CARLETON			
*PhD Computer Sci/Ottawa	54	62	116
McMASTER			
Occup/Phys. Therapy Expan	134	166	300
*Multi-Univ Internship in Engineering	120	70	190
NIPISSING			
*Native Teachers	328		328
OTTAWA			
French MD stream	181		181
*Fr Teacher Ed	10	100	110
Law Educ Equity Pgm	80		80
BEd Math/Sci - Fr	93	92	185
*Speech/Audiology	131		131
QUEEN'S			
Instruct. Dev Ctre	143	289	432
RYERSON			
Environ Health	35	105	140
TORONTO			
Physiotherapy	307		307
Undergrad Learning	325	208	533
Nursing PhD	176	130	306
Woodsworth Health Admin	127	728	855
TRENT			
Collab with Sir Sandford Fleming	127		127
WATERLOO			
*Distance Ed Expan	100	103	203
WESTERN			
*CAD/CAM Engineering	346	82	428
WILFRID LAURIER			
Distance Ed Expan	46	101	147
WINDSOR			
BSc/BEd	256	107	363
YORK			
Undergrad Critical Skills Development	222	227	449
OISE			
College teachers pgm	42		42
OCA			
Access/Equity Pgm	43		43
TOTALS	**3,663**	**2,757**	**6,420**

(*) - awarded as result of OCUA competition